

Pen

SOUTHERN TEXTILE BULLETIN

VOLUME XXII

CHARLOTTE, N. C., THURSDAY, JANUARY 5, 1922.

NUMBER 19

No more convincing evidence of TALLOFATS superiority could be desired than the fact that so many mills of prominence have chosen TALLOFATS as the sizing which gives them the best results.



Charles R. Allen Manufacturer
Distributor **Charleston, S. C.**



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Save 50 to 75 per cent. of the Labor Cost of
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An Open Letter on Cotton Warp Sizing

Mr. Cotton Mill Executive:

An authority on the chemistry of practice and cotton warp sizing states: Many cotton manufacturers would be astonished at the amount of saving that could be effected in their sizing process if they could only be persuaded that positive results could be obtained on a more efficient basis, at a very much lower cost, with modern, highly standardized commodities.

Our Textile Laboratory, cognizant of the vital importance of the primary treatment of the cotton warp and its relation to the subsequent processes, has, in no small degree, demonstrated the truth of the foregoing statement in New England and Southern cotton mills during the past decade.

AMALOL and GLUANTINE are displacing older methods whenever used and invariably show an appreciable saving from start to finish.

Let us prove to you the ready adaptability of AMALOL and GLUANTINE in your plant, and moreover, do not fail to read the interesting literature that has been recently sent you.

We will gladly ship you on approval a barrel of each, and furnish correct formula for your individual requirements.

List of users gladly furnished.

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Full Roller Card	Spoolers
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SACO-LOWELL SERVICE

BULLETIN NO. 1

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For best results in carding it is essential that the teeth of the licker-in be kept sharp. The tendency of the annealed wire commonly used is to wear quickly. To overcome this we have devised a special process whereby we harden the points of the wire and leave the base pliable so that it can easily be rolled into the grooves of the licker-in drum. This type of wire is used by us exclusively. To insure better carding and save money on repairs send us your licker-ins to be rewound.

SACO-LOWELL SHOPS
CHARLOTTE, N. C.

Why a Morse Silent Chain

The Morse silent chain is used because of its superiority based on the design of the exclusive "rocker-joint" construction, the very highest grade of material and heat treatment, the extreme accuracy in manufacturing and the engineering assistance in the designing of textile drives by engineers trained in this particular line and backed by the long standing reputation of the MORSE CHAIN COMPANY.

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"MORSE" is the guarantee always behind our
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How Six People Save 1,000 Working Hours

A South Carolina Textile Mill which furnishes employment for 350 families was losing 1,000 productive hours a week to the family wash-tub.

The 100 or more women, each of whom took ten hours of each week to do the family washing, were usually so exhausted on the following day that the mill suffered a second loss.

And the company never knew just how many hands it could depend upon—it never could rely upon a certain number of looms being in operation on any certain day or for any certain length of time.

Recently this mill invested a nominal amount of its capital in an American Mill Village Laundry.

The plant was placed in charge of a washerman and five women helpers—negresses who were of no use in the mill.

These six laundry operators, benefiting from intensive training from a corps of American demonstrators, han-

dled without difficulty all of the washing and ironing for the village.

And with these six cleansing specialists this company is saving 1,000 valuable working hours in the mill each week.

Employes have an abundance of clean, fresh clothes at a price that everyone can afford to pay, and yet, so efficient is the operation of this American Mill Village Laundry, that it is actually earning a dividend of 20 per cent on the investment.

"Taken all in all," says the general manager, "it's far and away the best investment we ever made."

It would be an equally excellent investment for your mill. The expert assistance of our engineering staff is yours for the asking, if you would have the lay-off situation analyzed in your plant.

Write us today—it will not obligate you in the least.

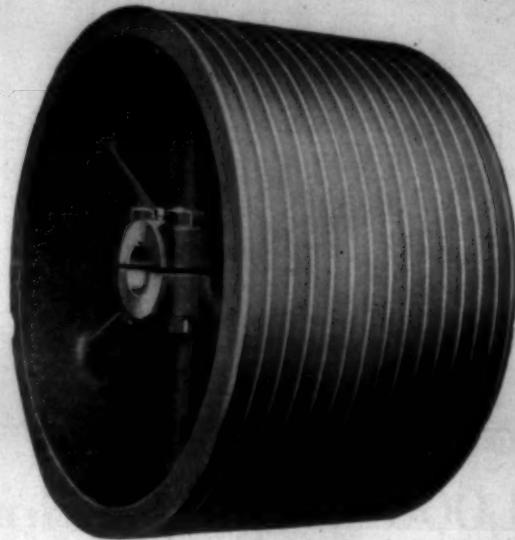
The American Laundry Machinery Company

Specialty Department N

CINCINNATI, OHIO



This composite factory group shows the manufacturing plant of The American Laundry Machinery Company, the world's largest producer of laundry equipment, and originator of the American Mill Village Laundry. The service of this organization is sold with every American Mill Village Laundry installation.



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is its POWER TRANSMISSION SYSTEM, keying together, as it does, your many and varied types of machines with the source of power. And the efficiency of your whole plant depends upon your selection of the proper appliances for the positive and continuous operation of each machine.

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of POWER TRANSMISSION MACHINERY includes not only every article in the line but also many types of each article, affording a selection of equipment best suited to meet your individual needs.

Our experienced Engineers will be glad to assist you in making your selections whether for a complete equipment or a single article.

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COUPLINGS
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BASE PLATES
FLOOR STANDS
PILLOW BLOCKS
WALL BRACKETS
ROPE SHEAVES
BELT
TIGHTENERS

SOUTHERN TEXTILE BULLETIN

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VOLUME XXII

CHARLOTTE, N. C., THURSDAY, JANUARY 5, 1922.

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The Tariff Situation

Cotton manufacturers will find the following statement of the tariff situation unusually interesting. It was prepared by W. D. Adams, secretary of the American Cotton Manufacturers' Association and sent to all members of that organization:

In response to numerous requests, your secretary has prepared for press publication the following statement regarding the tariff situation, its genesis, the scope of activities of your association and its present status, which is sent you for your information. It is needless to say that your association has exerted every effort and to the limit of its power, has put forth every energy to the end that our industry might be adequately represented in the hearings in Washington and it is the belief of your officers that great good has been accomplished—the results of which will become increasingly apparent with the years.

The statement follows:

"The tariff hearings having now been completed by the Senate Finance Committee, and the actual writing of the bill being under way, the public interest in the subject is again uppermost in the minds of the business world.

"That there is probably no industrial group in the country today displaying such interest or taking such an active part in tariff discussions in Washington as the American Cotton Manufacturers' Association, with its thousand textile mills and general headquarters in Charlotte, N. C., was the statement yesterday of W. D. Adams, secretary and treasurer. The vital importance of the subject is appreciated when it is considered that the cost of production of the majority of fabrics is greater in America than elsewhere owing to its high standards of living and other determining factors, such as high wages, transportation costs, etc.

"This is particularly true as to the finer cotton goods so largely made in New England, and the commercial yarns in which the South leads; in both of these Great Britain and other continental countries have always enjoyed superior advantages, to say nothing of Japan's coming into the world's markets with its average daily wage for adult males of only approximately 50 cents per day and with lax regulations governing hours and conditions of labor.

"The primary purpose of a protective tariff is to equalize the cost of

production at home and abroad, thereby safeguarding to American today, the industry its home market within such reasonable limitations as the Congress may devise, and to thereby maintain the American standard of living. It is not to be forgotten that approximately 85 per cent of the product of American mills is consumed at home and only about 15 per cent is exported. America is the world's richest market and one of the few primary fields where ability to pay is a most vital consideration. On the other hand, the opposite condition obtains in England, where only 15 per cent of her output is consumed at home and 85 per cent is exported. Due consideration to those fundamental facts shows how important it is that proper steps be taken to preserve the American market for the products of American labor. It is fallacious to imagine that England, reputed to be a free trade nation is really such; for the best evidence to the contrary is the fact that during the past year England collected more in import duties than did the United States, under the Underwood tariff law. Indeed, Great Britain garnered in import duty \$16.50 per capita, aggregating a total of \$728,000,000, while the United States, reputed to be high protectionist, collected only \$3.15 per capita, aggregating a total of only \$331,000,000, with over double Great Britain's population. Canada, the great British Commonwealth just north of us, collected \$19.50 in import duties for every man, woman and child in the Dominion!

Do Not Desire Tariff Wall.

"It should not be imagined, however, that American manufacturers are desirous of erecting such a high tariff wall about the country as to completely stop importations, for no class of men in the country appreciates more fully than manufacturers the need of a healthy foreign trade, both incoming and outgoing. They recognize that a substantial export business will go far towards stabilizing home production and will also provide an outlet for surplus goods which might otherwise prove a drag on the domestic market. At the same time, manufacturers fully realize that their greatest market is here at home; that 85 per cent of their output is sold to the domestic trade; and, that it would be foolish as well as uneconomic to jeopardize it in ex-

cess under such conditions as exist duties, with rates accordingly; this was a distinct departure from previous practice, import duties having always been assessed on foreign values in the past. Briefly, the effect of the change was to make the American wholesale selling prices for identical or comparable commodities the basis of assessment for import duties. The bill, known as Bill H. R. 7456, was passed by the House of

Representatives on July 21st and sent to the Senate on July 22nd, for further consideration. The details of rates and classifications covering all varieties of cotton fabrics and yarns are too voluminous and intricate for reproduction here, nor would they be clear to the lay mind without too lengthy explanation. The bill did not give all that was asked for, but with the American valuation plan included it would have afforded a reasonable measure of protection in most cases. Of course, there were inequalities in it, some of which seriously jeopardized the merit of the structure as a whole, but it was believed that many of these irregularities would be ironed out in the Senate.

"On December 8th, the Consolidated Tariff Committee of the textile industry appeared before the Senate Finance Committee and presented its case with exceptional strength, Mr. Cramer discussing the yarn schedule, former U. S. Senator Henry F. Lippitt of Rhode Island the cloth schedule, and Mr. Lowe the general features of the bill. Mr. Cramer's argument was particularly one of force and of special interest to the South. Briefly stated, he endorsed the house rates on plain grey single yarns, but on commercial or advanced yarns, he asked that the specific rates be made commensurate with the ad valorem rates of the bill, which he declared acceptable provided corresponding changes in the ad valorem rates were made should there be any modification of the American valuation plan on which the House rates were based. He offered as a substitute for the second paragraph of Section 901 of the House bill the following:

"That committee held numerous conferences in New York, Boston, and Washington, with experts and representatives of different branches of the trade and spent the greater part of several months in active work on the bill. Both Messrs. Cramer and Lowe were in Washington on numerous occasions, appearing first before the Ways and Means Committee of the House, discussing various classifications and rates. The Ways and Means Committee adopted as its basic principle the American valuation plan of assessing import

within the cell-walls gives greater one cent per number per pound for every number in excess of No. 40; exceeding No. 120, 60 cents per pound: Provided, that none of the foregoing, of numbers not exceeding No. 100, shall pay less duty than 7 per centum ad valorem and, in addition thereto for each number one-fifth of one per centum ad valorem; nor of numbers exceeding No. 100, less than 27 per centum ad valorem."

"This substitute was recommended in lieu of the provision in the House Bill which left out combed yarns from the advanced yarn classification, and which had only given a specific rate of one-fourth of one cent per pound per number up to and including No. 40; exceeding No. 40 and not exceeding No. 120, 10 cents per pound and three-tenths of one cent per number per pound; exceeding No. 120, 34 cents per pound.

When the Underwood bill was under consideration ten years ago Mr. Cramer contended that advanced yarns had never received their due consideration at the hands of tariff framers in Washington and argued that such yarns should not be treated, as had heretofore been the case, merely as steps in the process of manufacture of cloth; but then alleged that they were merchantable commodities and as such were finished products to the mills making them and should have consideration accordingly. Congress adopted his views which were incorporated in the Underwood bill. He again urged the same point of view at this time and pointed out that the House had acceded to that point of view on the ad valorem rates and he now asked that the Senate make the specific rates to correspond to those ad valorem rates. As for plain single grey yarns, Mr. Cramer admitted that there was no threat of serious foreign competition on them and hence he had no argument to offer for a change in those rates.

"Among other matters brought out during the hearing was the extent of comparatively free house rent, cheap coal, electric lights, water and sewerage supplied to mill operatives by Southern cotton mills and Mr. Cramer was requested by the Senate Finance Committee to submit full data from his own mill at Cramerton, N. C., concerning the effect of the same on wages. It was desired to know how much allowance should be made for those items in comparing Southern cotton mill wages with those elsewhere. Mr. Cramer was also requested to submit full data as to hours of labor; wages paid to men, women and children and pre-war comparisons with the same. This is a matter of vast importance to the Southern cotton manufacturing industry and will no doubt be the subject of a special report at the next annual convention in Washington, D. C., in May, by Mr. Cramer.

"Senator Lippitt asked for various advances on fine fabrics, mostly Northern made, but they were so numerous and technical that space does not admit of their enumeration or explanation.

"The representatives of the industry were given a most courteous hearing by Senator Boies Penrose,

chairman, and the other members of the Senate Finance Committee, including the ranking Democratic member, Senator F. M. Simmons of North Carolina, who took a leading part in the discussion as to comparative foreign and domestic conditions of manufacture. It is expected that the Senate bill will be drafted by the Senate Finance Committee and ready for submission to the Senate at an early date, but it will probably be early Spring before the bill is passed by the Senate and agreed upon in conference by representatives from the House Ways and Means Committee and the Senate Finance Committee. Until the bill is completed and signed by the President, the emergency tariff bill passed last spring will remain in effect, having recently been extended by legislative enactment for that purpose."

Chemical Properties of Cotton.

(By C. E. Mead, in "Builders.")

Of the three different groups into which the properties of raw cotton may be divided—physical, electrical, and chemical—that which has received the least attention from the spinner's point of view is the chemical. The reason for this seems to be that the physical properties of the fibre have always been so important in the spinning industry that usually the manufacturers have not bothered with chemical research, but have left that entirely to the bleachers, dyers, and finishers. Thus, although various writers and investigators, as well as mill men, have now and then advanced theories, when the fibre has actually been analyzed chemically, questions have seldom been asked about possible relations between chemical properties and spinning qualities.

Analyses of the cotton fibre which have been made by various scientists from time to time disclose that in general cotton is made up of the following chemical properties:

Water	6.74%
Ash	1.65
Protein	1.50
Cellulose	83.71
Nitrogen-free extract	5.79
Fat	.61

These figures are taken from Bulletin 33 of the U. S. Department of Agriculture and represent the average of a number of tests. They may vary somewhat with different cottons.

Of the above-mentioned properties the amounts of water and of fat, wax and oils contained in the fibre seem to have the most to do with its spinning qualities. The wax and oily matter is present chiefly on the surface of the elongated cell which constitutes the fibre, acting as a kind of protection. Some of it is also contained within the cell-walls. Apparently it is the presence of this waxy substance, coating the fibre, that makes it essential to maintain a high temperature in spinning rooms, especially when spinning fine yarns. As the temperature falls the wax is likely to become stiff, and prevents the proper drawing out of the fibre during the spinning process.

It is also thought that the oil

pliable and less likely to break.

Another effect of the presence of wax and oil in the raw cotton is said to be the necessity for conditioning the yarn after it is spun, allowing the oil and wax to become stiff and dry after the high temperature of the spinning room.

While the mere presence of the wax coating on the fibre is a factor that must be considered in the manufacturing process, its amount apparently exercises a direct influence on the strength of the yarn into which the fibres are spun. Our experiments show that the strength of the yarn is increased 15 to 20 per cent by the removal of the wax, the yarns being brought to the same condition of moisture before testing. Removal of the wax should increase the binding action between the fibres, creating more friction and making the yarn more homogeneous.

On the other hand, we would in all probability expect yarn to wear longer with the wax, as the waxy coating serves to keep excessive moisture from getting the fibre and causing deterioration.

Analysis has shown that American cotton contains about 84 per cent of fatty matters, whereas East Indian contains only 33.7 per cent (Matthews: *Textile Fibres*). It seems probable that Egyptian cotton, along with its peculiar coloring matter, contains a still higher percentage of wax and oil. The amount of oil in the fibre also varies considerably with the season of growth, but this variation is not so great as that arising from radical differences in species. As the chemical changes in the fibre are the means employed in building up the cell-walls it is easy to see that if they are not accomplished the mechanical qualities suffer, and the fibre gives poorer results in spinning.

Our experiments indicate that there is a relation between the amount of wax and the percentage of short fibre in any cotton, and it is probably for this reason that many of the theories of the action of wax have been offered, as the amounts of wax were more generally known before short fibre percentages.

The hygroscopic quality of the fibre is of great commercial importance. Under normal conditions cotton will contain from 5 to 8 per cent of hygroscopic moisture, although in a very moist atmosphere this may be increased. Thus, it is less hygroscopic than either wool or silk. Besides being of commercial importance this factor has an extremely important effect on spinning, as the physical condition of cotton is largely influenced by hygroscopic moisture.

Of the other chemical properties found in raw cotton, that which affects the spinning most is the ash, or mineral matters. When more than 1 per cent, the excess of ash may be considered as mechanically attached sand and dust. The true ash consists principally of carbonates, phosphates, chlorides, and sulphides. Unless very excessive in amount it does not appear to be very important as far as the spinner is concerned.

Chemical research seems certain

the cotton industry of the future. It was long ago found of the greatest value in connection with bleaching, dyeing, and finishing, and it has been utilized more recently in connection with the development of high explosives. It is not at all unlikely that in the future it may become to the grower an essential aid in developing new and improved varieties, and for the spinner a valuable means of determining the quality of the cotton which he is buying. At present it is undeveloped and unknown, but it seems to offer possibilities of increased value in the future.

Japanese Visitors in Southern Mills.

Relative to the visits of Japanese cotton manufacturers to the mills in this country, President L. D. Tyson, of the American Cotton Manufacturers' Association, is sending out the following letter:

"A number of members of the association have brought to my official notice the fact that during the past few months the South has been overrun with Japanese visitors desirous of going through Southern cotton mills.

"It is a well known fact that Japan is now increasing its spindles at a rapid rate, probably faster than any other country. The Japanese bid fair to speedily become our strongest competitors, with their 50 cents per day for adult labor and other conditions with which we could not possibly compete. The Japanese individual is probably the best imitator on earth and he needs only to see our mills to be able to copy them with the assistance of the American machine shops, who are endeavoring to sell him machinery and who have in their office files all the specifications and other engineering data relating to the machinery and equipment of our mills. In fact, most of the Japanese visitors are personally conducted through the South (and through our mills) by the agents of the American machine shops.

"While most of us are not only willing but anxious to accommodate our friends in the machinery business, it is too much to expect us to have the same interest as the machine shops in establishing Japanese competition in the world's cotton goods market.

"Without presuming, therefore, to dictate to the owners of the Southern cotton mills, I deem it my duty to call attention to this state of affairs and to suggest that Southern cotton mill owners give serious thought to the matter of throwing their mills wide open to such visitors. It is necessary, in this connection, only to quote the comment of one distinguished Japanese visitor in which he recently expressed his appreciation of the courtesy extended to him by the management of the Southern cotton mills which he visited, expressing his grateful appreciation of the very complete information they so kindly gave him, in contradistinction to the closeness of the New England mill managers whom he said rendered it well-nigh impossible for him and his countrymen to gain either access to or information relating to their mills."



"NATIONAL" NEWS



Of interest to Dyers and the Color Using Industries in General
Prepared by the National Aniline & Chemical Co., Inc.

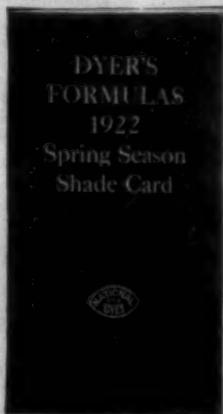
COLORS FOR SPRING

The "National" Announces New Issue of Dyer's Formulas

FOR 1922 SPRING SEASON

Dyers of silk, cotton and wool will find of great practical value our booklet of Dyer's Formulas that has just come from the press. The recipes have been prepared by "National" research colorists for matching the shades in the 1922 Spring Season Shade Card, issued by The Textile Color Card Association.

It is the aim of the "National" to exercise such care in the choice of the dyes recommended as to insure to dyers following recommendations made, the highest degree of favorable results.



Formulas are given for the use of "National" Dyes in reproducing on cotton, silk and wool the fifty-six evening shades, ten hosiery colors and the five shades carried over from last season, as well as formulas for the fourteen special woolen colors.

The matching of shades on any material, co-operative effort in solving problems, and the supplying of special technical data on the application of dye-stuffs, are important features of "National" Service.

This group of Dyer's Formulas serves a practical purpose and meets a present need. If you have not already received a copy, write to our nearest branch office, which will be glad to supply you.

WHAT QUALITY DO YOU DESIRE MOST IN DYESTUFFS?

Uniformity, Shipment by Shipment?

Very Well, Here It Is!

The "National's" method of standardizing every step in the manufacture of dyes, commencing with the initial raw material, checking and cross-checking under the control of a trained inspection service, insures that the final product shall always be of a scientifically fixed quality.

STOCKS AT CHARLOTTE

For Convenience of Southern Cotton Mills

Prompt delivery is one reason for the popularity among Southern cotton mills of

National Indigo NAC 20% Paste
National Sulfur Black BG Extra Conc.
National Erie Black GXOO
National Sulfindone Blue B Conc.

Ample stocks of the above and of the entire National line of dyes for cotton are carried at our Charlotte, N. C., warehouse in the heart of the Cotton Mill district.

BLACK

Is One of the Spring Fashion Colors

In no instance is the method of standardization used by the National Aniline & Chemical Co., Inc., more fully demonstrated than in the production of

National Erie Black GXOO

Next to indigo this is one of the most widely used dyestuffs and it

is essential that every delivery shall be made up to the Company's well-known standard.

Product samples, together with practical dyeings accompanied by full working details, will be supplied to all inquirers upon request.

National Aniline & Chemical Company, Inc.

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San Francisco	120 Second St.
Toronto	14 Front St., East



NATIONAL DYES

The Importance of Good Welding

In all industrial centers few subjects are of greater importance to commercial men than the upkeep and maintenance of all descriptions of machinery, for upon the economic value and efficiency of the methods adopted to this end depends, to a large extent, the profit and loss of production. The employment of a proper system of reconditioning—as distinct from the haphazard methods of scrapping and replacement too often practiced—literally means the saving of thousands of pounds in conjunction with an enormous saving of working hours.

Strangely enough, many unquestionably capable business men, in all trades, do not give the vital question of repairs, the consideration it merits; and the neglect is inevitably reflected in balance sheets and dividends—simply because waste and failure to stop financial leakage is the antithesis of prosperity.

Let us take for example the textile industry. Here we have a trade in which machinery is more extensively used than in almost any other, and much of it is exceedingly costly; and yet in a large number of cases—happily less than formerly—breakdowns are made good by the purchase of an entirely new unit, or, at best, the replacement of a new member or component.

This procedure, we contend, cannot be too strongly condemned since, in 98 per cent of cases of breakdown or failure through wear and tear, the original fabric can be treated in such a manner as shall restore it to full efficiency. There is practically no device fabricated of cast-iron, wrought-iron, cast-steel, alloy steel, aluminum, gun-metal or bronze, which, whatever its condition, cannot be reconstructed in every respect equal to new by the application of the only sound and reliable process of metallic and mechanical recreation—scientific welding.

That unsatisfactory, expensive, and antique methods are still employed in the reconditioning of machinery is due, we think, to the fact that many busy business men have neither time nor opportunity to study the latest developments of scientific discovery and research, and, from this point of view, our task is not a difficult one; explanation is the first step towards adoption, and we have invariably found that converts are numerous in proportion as exposition is broadcast.

Without further apology, therefore, let us get to grips with our subject. The advantages of scientific welding are rapidity in operation, economy in cost, permanence in effect, and 100 per cent efficiency. To this must be added its adaptability to all industrial metals, mechanical devices, or components—small or large. In contradistinction to repair by replacement welding holds special advantages; principal among which we must place its scope. It is not at all local in its effect—that is to say, it does not merely remedy

a fractured or damaged member which has given out, but can be employed to unite fractured portions or build up metallic deficiencies in any part of the machine. This, obviously, means complete reconstruction, and is a quality not possessed by any other process.

No machine, therefore, unless it is entirely obsolete, need be scrapped or sold second-hand nowadays, simply because a process already exists whereby all mechanical devices can be rapidly and economically restored to their original efficiency—if entrusted to operators possessed of the requisite knowledge and skill.

Now, this brings us to a point of supreme importance, upon which it is impossible to place too great emphasis: Complete restoration is a sheer impossibility unless the work is under the immediate control of an expert metallurgist, who has made a special study of the normal and abnormal behavior of metals under high temperature treatment; further, he must have at his disposal not merely qualified and experienced operators—each in his way a specialist in one of the half dozen processes commonly employed—but workshops and laboratories replete with every modern requisite.

Welding is certainly not "anybody's job," and it cannot be profitably employed by men whose knowledge and methods are alike restricted.

Volumes might be written to indicate the problems and difficulties by which, at every turn, the welder is confronted; but in a short article we must content ourselves by showing what can be done, given the necessary operative skill and equipment.

The following list, dealing chiefly with textile machinery, though incomplete, may serve to indicate the scope of welding in this direction, though it must not be assumed that equally good results are unobtainable in the repair of all types of machinery used in all trades. A broken bacon-cutter or a disabled fifty-ton crane are both well within the scientific welder's province.

Routine repairs include: All power and driving machinery, boilers, furnaces, mechanical stokers, conveyors, lifts, fans (all kinds), bundling presses, winders (all descriptions), linen, cotton, and calico looms, plaiting machines, breaking-up machines, waste machines, sizing, drying, and washing machines, strippers, slitting and rewinding machines, hacklers, tow-spreaders, reelers, doublers, spooling machines, rollers, scutchers, warping machines, printing and dyeing machines, cloth presses, carding machines, openers, balers, gassing frames, etc., and every description of inter-departmental or road transport, garage, workshop or engine room tools, accessories, or equipment.

Now in making broad and unqualified claims on behalf of the repair and maintenance of machinery by scientific welding, one has to be pre-

pared to rebut adverse criticism, and to substantiate every statement made; this, at times, is not an easy matter because a large number of reconstructions are undertaken by wholly unqualified operators, and are in consequence worse than useless. That, in reality, has been the great difficulty by which the welding specialist is continually confronted; he has got to show that welding of itself in an infallible system of mechanical restoration, and that all failures are due to the bungling of incompetents.

Most reputable firms, therefore, have adopted the guarantee policy as proof of efficiency. This, of course, precludes all possibility of debate—if an article is accepted for repair an unsatisfactory result means the return of the money.

But quite apart from this, innumerable cases could be cited to prove conclusively that scientific welding not only restores the device or machine to full service, but that the reconditioning is effected at from fifty to seventy-five per cent of the cost of replacement; indeed, there are instances in which as much as ninety per cent has been saved through the employment of this unique method of mechanical rehabilitation.

In this connection we can, perhaps, make our meaning more clear by analogy. No one regards the practice of medicine, or law, or dentistry, or engineering as unsound because certain exponents are incapable or deficient in skill. Similarly with welding; the science is not invalidated because incompetent craftsmen work havoc with valuable machinery. A thousand proofs could be adduced to prove that scientific welding, in the hands of capable craftsmen, has been instrumental in saving literally millions of pounds in the reconditioning of all types of mechanical devices in all parts of the world.

Welding as a method of efficient restoration is not on its trial—that stage has long since been passed. The only question is the competence of those who claim proficiency. The United States of America were fully cognizant of this when, recently, they inaugurated the Bureau of Standards (welding). They realized that if welding was to come into its own incapable craftsmen must be excluded, and to this end they drew up a series of rigorous tests calculated to preserve the high standard of efficiency attainable only by operators whose credentials are beyond question. In this they have done an immense service to the progress and practice of welding.

Admittedly there is no great difficulty in uniting two pieces of metal by fusion; but it is immensely important that machinery users or owners should realize that mere junction—even though externally sound—is not necessarily scientific welding.

The weld that is made by anybody may last a week, a month, or a year,

but the weld that is executed by a specialist is permanent.

Those who study efficiency and economy in the upkeep of mechanical devices cannot fail to appreciate the value of scientific welding, but, before they proceed very far, let them satisfy themselves that proper emphasis is given to the first word.—From *The Journal of Commerce*, Oldham, Eng.

Review of U. S. Foreign Trade in 1921.

Foreign trade figures of the United States in the calendar year 1921 show a heavy reduction in their stated value of the merchandise entering and leaving the country. In no single year in the history of our foreign trade, says the Trade Record of the National City Bank of New York, have the official figures shown such a percentage of reduction. The total foreign trade of the country, imports and exports combined, stood at 13½ billion dollars in the calendar year 1920, the highest total ever reached, and eleven months figures ending with November, 1921, justify the assertion that the total for the full year just ending will not exceed \$7,000,000,000, and will probably fall a little below that total as against 13½ billion dollars one year earlier.

This fall off in the values of the foreign trade in 1921, when compared with 1920, extends to every great group of articles, both in imports and exports. Raw manufacturing material imported shows a fall of about 53 per cent in total values; foodstuffs 63 per cent, and manufactures 43 per cent, these figures being of course in very round terms, the smaller reduction in manufactures being due to the fact that importers are bringing in large quantities of manufactures in anticipation of a higher tariff. On the export side, manufacturing material shows a fall of 48 per cent, foodstuffs 33 per cent, and manufactures 51 per cent, these figures as to exports being also necessarily in very round terms.

Considering the trade of the country with the grand divisions, imports from Europe show a fall of 38 per cent, from North America 54 per cent, from South America 64 per cent, and from Asia and Oceania 58 per cent. Exports to Europe show a decline of 45 per cent, to North America 40 per cent, to South America 56 per cent, and to Asia and Oceania 39 per cent.

The general causes of this tremendous decline in the value of every group of articles imported or exported and also a reduction in the trade with every grand division of the world, lie primarily, says the bank's statement, in the fact that the prices per unit of quantity are in most of the important articles less than half those of a year ago and that in many instances a given quantity of merchandise now being imported is valued at less than half that at the same date last year.

New Years Greetings

To Our Many Friends

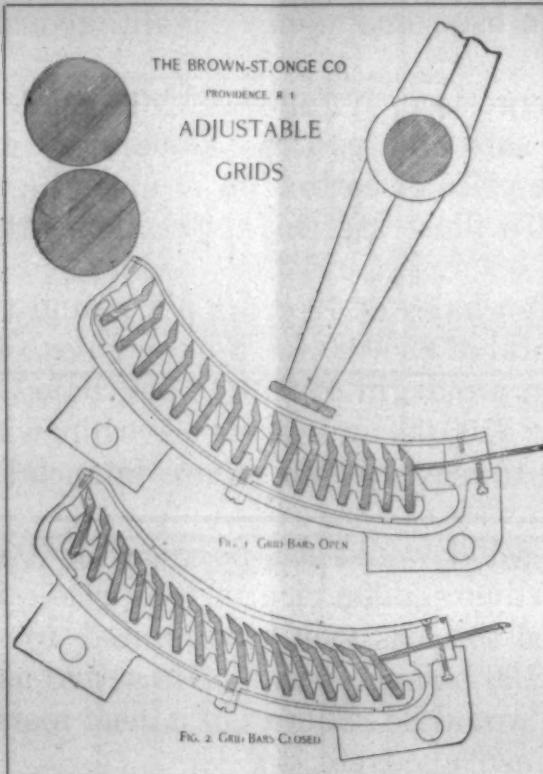
Resolved

In this New Year our aim will be to merit the confidence of a still larger number of friends

This device increases cleaning in the picker room, regardless of what you are now equipped with.

More Motes Extracted

Cleaner Laps for Cards



**No Cotton Wasted
in Picker Room**

No Broken Motes

**Less Work for
the Cards**

Eliminates Specks

**Reduces Fly and
Sweeping**

**This Device Will Pay for Itself in Less than One Year
in Any Mill**

Try Our Service?

Several Thousand Sets in Use

Established 1904

The BROWN-ST. ONGE Company

Mfgrs. and Selling Agents

Patented Friction Hub
For Pickers

COTTON MILL SPECIALTIES
PROVIDENCE, R. I.

Machine Specialties

Patented Economy Starter
For Pickers

A Practical Plan For "Hedging" Actual Cotton Now Held

Many planters, merchants, warehousemen and bankers are now carrying actual cotton in varying amounts. Doubtless many of them still owe for those things entering into the cost of production—fertilizer, implements, etc. For these reasons they can use some money advantageously.

The following suggestion, if followed, will enable these people to finance themselves in both a safe and legitimate manner, and without assuming the risk of having the price of cotton go to much higher levels after having sold the ACTUAL. To illustrate this suggestion with a ten-bale lot:—

Through selling ten bales at 19 cents per pound the seller would receive \$95.00 per bale, or a total of \$950.00 for the ten bales. He should then buy ten bales of FUTURES on a margin of \$10.00 per bale. This would require a margin deposit of only \$100.00, and would leave him with a net balance in hand of \$850.00, with which to meet his immediate financial requirements.

By doing this the seller would still be carrying 10 bales and would be protected against any further sudden rise in the price. Should the market not advance as anticipated the loss would be limited to the margin deposit of \$100.00, while the \$850.00 balance would be in actual use. In addition to these advantages the seller would be relieved of a dead monthly cost of about \$1.25 per bale for storage, insurance, etc.

Weekly Market Letters Mailed Free Upon Request, References Cheerfully Furnished, While All Inquiries Will Be Promptly and Courteously Answered.

All the members below are members in good standing of the American Cotton & Grain Exchange, and of the American Cotton & Grain Exchange Clearing Association, Inc.

Oliver & Houghton
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A. T. Jennings & Co.
88 Broad Street
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Rose & Son
24 Stone Street
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E. L. McGuigan & Co.
24 Stone Street
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81 Broad Street
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Eblin & Company
33-35-37 S. William St.
New York

(These firms are members of The American Cotton & Grain Exchange Clearing Association, Inc.)

Loom Fixer to Overseer

Written exclusively for Southern Textile Bulletin by "Old Fixer", a man who has had long & varied experience in this work

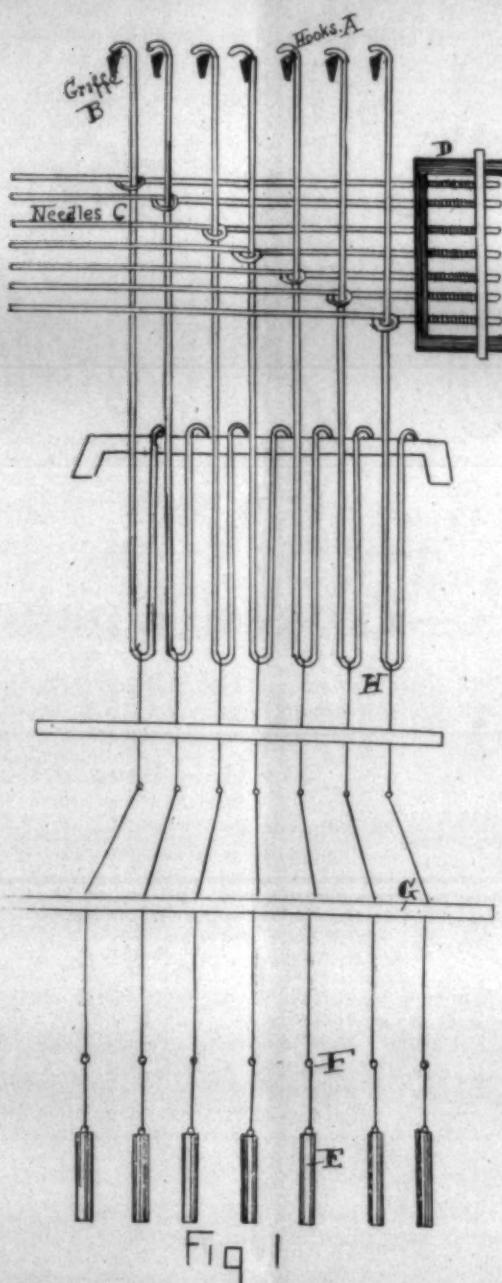
Jacquard Weaving.

Jacquard weaving has been extensively introduced in Southern mills during recent years and considerable fabric of intricate design and fine texture has been produced. The shedding mechanism of the jacquard machine proper may be divided into two general parts. First, the mechanism for producing one repeat of the woven design as arranged in the stamped cards and on the design paper; and, second, the harness which repeats the effect produced by the action of the cylinder and the upright wires from one selvedge of the fabric to the other. In the jacquard loom we have perforated cards for producing the woven pattern instead of cams and harness chains as in the common loom. Owing to this fact, the jacquard machine is capable of weaving numerous warp threads intended for complicated patterns that would be too cumbersome to produce with harnesses and pattern chains. The jacquard machine offers an opportunity for raising and depressing the individual warp threads, separately as required in the most elaborate of designs, by means of hooks and leashes.

A considerable range of jacquard looms are in service in Southern cotton mills at the present time. They may be seen arranged for as few as 200 hooks and as many as 900 hooks, according to the class of textures in process of manufacture. Regardless of the capacity of the jacquard machine, the mechanism may be divided into the following: The frame which supports the mechanism and which can be attached to the loom proper. The perforated board through which the neck-cords are drawn.

The hooks for raising the warp threads, consisting of wires about 17 inches long with a crook at each end. The needles which control the positions of the hooks in the creation of the woven pattern. The springs and the spring frame for pressing the needles into position at the proper time. The perforated board through which the neck-cords pass. The plunger for guiding the griffe bar. The catches for turning the cylinder which carries the pattern cards and the griffe bar for working the hooks.

A general view of the jacquard machine is given in Figure 1. The hooks are designated A. The griffe bar is shown in section marked B. The hooks are supported in the required positions by the little loops of the needles C through which the hooks pass as can be seen in the drawing. The needles are arranged in order in the needle board D and are supported in bearings. The part of the needles in the needle board is termed the head. Each needle is provided with a spring, with sufficient longitudinal motion to allow the free movement of the needle when operated by the pattern card. Holes are punched in the pattern cards for all warp threads of the



pattern to be raised in the shed for hooks are in position to be manipulated. Needles for which holes are punched in the pattern cards will each of the needles pushes the points of the needles into the holes of the cards. The needles are arranged in tiers, so when the griffe bar is down, the top crooks of the griffe are lifted by the action of the

loom making the pick these hooks will be elevated carrying with them the needles and warp threads to which they are united.

But the needles for which no holes were punched in the pattern cards will be moved back by the action of the cylinder carrying the cards so that they will not come into contact with the griffe bars and when the latter raise the needles will remain fixed.

The lower portion of the drawing shows the arrangement of the tie-up. The neck cords are marked H and are shown connecting to the lower parts of the hooks. The combiner board is designated G, the heddles F and the weights E. The number of hooks and the harness cords are, of course, determined by the character of the pattern in process of weaving. Each cord passes through a separate hole in the combiner board and the number of holes corresponds with the number of hooks. The harness cords proper consist of not only the eyes or mails through which the warp threads are drawn, but of the lingo or weights which are regulated to properly depress the warp threads when released by the action of the mechanism above. The drawing gives a part of one repeat of a pattern and is sufficient to illustrate the general plan used for making as many repeats as necessary for the creation of the design. In the regular weaving of the jacquard patterns, the entire harness system is liable to be crossed a number of times in order to get the weave required. The complicated arrangement is often simplified in fixing the jacquard with the long sides of the neck-board parallel with the equal sides of the combiner board.

Sometimes, in order to simplify matters, the double-shedding plan is adopted, consisting of using two griffe-bars, so arranged that when one rises the other depresses. Then instead of the bottom hooks resting on the neck-board they rest on the lower griffe-bar. Then when the shed is being formed, this griffe-bar falls, allowing the hooks which have not been engaged by the bars to depress.

The warp is levelled when the upper griffe-bar lowers the hooks, while the lower griffe-bar raises the hooks resting thereon.

The various types of tie-ups on the jacquard machine afford an unlimited scope for pattern production in practically all classes of curtains, damasks, and table cloths. A design which would be limited in scope in the common system of weaving may be woven with patterns composed of several hundreds of ends in the jacquard machine. If the harness is tied up on the pointed draft system, patterns of the diamond or angular form, which call for many changes, can be woven with nearly a thousand threads before there need be a repetition of the design.

Code—Shepperson's

Tel. BROAD 3536
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Odd Lots Cotton

Odd lot orders solicited for the purchase and sale of Cotton for future delivery

Special Attention to Mill and Dealers' Hedges

EDWARD L. PATTON & COMPANY
81 Broad Street, NEW YORK

Christmas at Selma Mfg. Co.

The Christmas festivities at the Selma Manufacturing Company, Selma, Ala., were unusually elaborate and enjoyable this year. The first event took place at the home of Superintendent Ernest Nelson and Mrs. Nelson, this being a turkey dinner in all of them, honor of the overseers and office

force. One of the features was the arrival of Santa Claus, who distributed gifts to all present. The overseers presented Mr. Nelson and his wife with a handsome silver meat platter, suitably inscribed.

The Christmas tree for the mill children was a happy occasion for all of them. It was held in auditorium, which was filled with children

and their parents. The tree carried a gift for every child and also a bag of fruit for each. After 60 children took part in the exercises, Dr. J. A. Davison, of the First Baptist church, and Dr. Jos. Dunlingson, of the Presbyterian church, assisted in the exercises.

A pleasing incident of the evening was the marriage, during the exercises, of Miss Adeline Copeland and Walter Weeks, both of the spinning department.

cises, of Miss Adeline Copeland and Walter Weeks, both of the spinning department.

At the dinner, plans were made for organizing a bowling league, with teams from every department of the mill. This is in addition to the regular basketball games for boys and girls. Two games are played weekly in the auditorium and much interest is shown by the help. Mr. Nelson is coaching two teams in basketball and has entered the boys' team in the City League.

Assisting Superintendent Nelson in the Christmas tree entertainment were Mrs. Walter Dunevan, Miss Annie Estes, Miss Agnes Walker and Wm. H. Morgan.

Norris Brothers to Expand.

Greenville, S. C.—The establishment of offices and warehouses on East McBee avenue, for the operation of a general mill supply business, under the direct management of Vivian M. Manning, who retires as a member of the firm of Mills & Manning, stock brokers, on January 15, is one of the several extensive developments of their already large business planned by Norris Brothers, Incorporated, in increasing their capital stock from \$200,000 to \$600,000, according to announcement obtained from officials.

Norris Brothers, which is one of the largest manufacturers of shuttles and blocks in the nation and which has an international reputation and an international business, purchased all of the property on the south side of East McBee avenue, between Rothschild's store and the C. & W. G. depot some years ago, with the expansion which is soon to be put in effect in view. The directors of the corporation now have decided to remodel two of the store rooms there for occupancy possibly by February 1.

In addition to the development, another change of wide interest is the election of Clement F. Haysworth, a member of the law firm of Haysworth & Haysworth, to the board of directors of Norris Brothers. Mr. Manning, who is to have charge of the new general supply business of the firm, also has been elected a member of the directors. The board of directors now is composed of D. L. Norris, president; A. M. Norris, vice-president; J. M. Norris, secretary; V. M. Manning and Clement F.

Carl Vietor Retires From Commission Firm.

Carl Vietor, senior partner of the firm of Fred'k Vietor & Achelis, commission merchants, New York, has retired from the firm and from all active business. The business of Fred'k Vietor & Achelis will be continued as heretofore under the same firm name by the remaining partners.

The business was established about 75 years ago by the fathers of Carl and Thomas F. Vietor and Thomas and John Achelis. Carl Vietor was admitted to the firm as a partner in 1873. When his father died on January 29, 1910, the greater part of the estate was left, it was said, to Carl, the oldest son, who was subsequently made the senior partner.



Longest Service—Lowest Upkeep

When you're deciding on a roof for your mill or factory, you're almost sure to ask this question: "Which roof will last longest with the least trouble and expense for upkeep?"

The more experience your architect has had in roofing matters, the more surely will he answer: The Barrett Specification Roof. For in every section of the country there are roofs of this type that have been in service for thirty, forty or more years, and are still in good condition.

Despite proved durability and freedom from maintenance expense, Barrett Specification Roofs are moderate in first cost. And they provide a degree of fire protection not exceeded by any other kind of built-up roof.

It is only natural, therefore, that Barrett Specification Roofs are the choice of architects and construction engineers the country over, and that today they cover a majority of all the permanent flat-roofed buildings in America.

Among the important cotton mills of North Carolina upon which Barrett Specification Roofs have recently been laid, are two plants of the Erwin Cotton Mills Company, one located at Duke and the other at

Cooleemee. The roofs on both these plants are bonded against all roof repair expense for a period of twenty years.

The Only Bonded Roof

Barrett Specification Roofs are not merely guaranteed—they are bonded.

When a roof is 50 squares or larger in size, and located in a town of 25,000 or more, or in one of the many smaller places where our inspection service is available, the owner receives, without cost, a bond issued by The U. S. Fidelity & Guaranty Company, of Baltimore, protecting him against all repair expense during the life of the bond—Type "AA" Roofs for 20 years; Type "A" for 10 years.

Before specifying or closing contract for a Barrett Specification Roof, be sure to read carefully all the stipulations in the specifications.

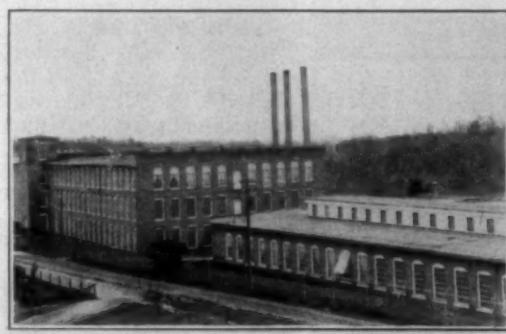
Full details regarding these Bonded Roofs and copies of the Barrett Specifications will be gladly sent free on request.

The *Barrett* Company



New York Chicago Philadelphia Boston St. Louis
Cleveland Cincinnati Pittsburgh Detroit New Orleans
Birmingham Kansas City Minneapolis Dallas Nashville
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Salt Lake City Bangor Washington Johnstown
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Baltimore Omaha Houston Denver Jacksonville

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Winnipeg Vancouver St. John, N. B. Halifax, N. S.



Notice of Sale of Cash Mills

By virtue of an order and decree of sale made by His Honor, Judge John S. Wilson, in the case of J. A. Carroll et al. vs. Cash Mills, G. P. Hamrick et al. signed on the 10th day of November A. D. 1921, I will sell before the Court House door in Gaffney, S. C., on February 6th, 1922, during the legal hours of sale, to the highest bidder, the entire plant of the Cash Mills, located near the northern limits of Gaffney, S. C., consisting of real estate, mill buildings, machinery and supplies. The real estate consists of One Hundred One and 93-100 acres of land lying and being in Cherokee County, State of South Carolina, about one mile north of the city of Gaffney, on both sides of the Washington to Atlanta Highway, and on the main line of the Southern Railway Company from Washington to Atlanta, with which it is connected by a spur track for unloading and shipping facilities, a full description of which is contained in deeds to Cash Mills on record in the office of the Clerk of Court of Cherokee County, S. C., and contained also in the decree of sale. Deeds to real estate contain easement to discharge sewerage into Peoples Creek.

The plant consists of main building of brick and wood 265x104 feet, two stories high with basement; one standard cotton warehouse, 75x100 feet; one brick boiler house 24x22 feet; one pump house 27x20 feet; one wooden commissary building 24x82 feet; one garage 20x24 feet; one barn 30x36 feet. Also fifty-one tenant houses containing from three to thirteen rooms, constructed of wood, and all equipped with water and sewerage, screens and cooking ranges, wired for electric lights.

The manufacturing department is equipped with modern machinery, consisting of Kitson Bale Breaker, vertical Opener, standard width. Kitson condenser complete, fan, breaker hopper, finishing lapper, beater, carding beater, roving waste machine, 20 Mason Cards, 18 delivery first-drawing; 18 delivery second-drawing; Campbell ball-bearing top rolls on drawing; 2 Saco-Lowell Slubbers, 72 spindles each, Campbell ball-bearing top rolls; 4 Saco-Lowell Intermediates, 120 spindles each, Campbell ball-bearing top rolls; 13 Saco-Lowell Fly Frames, 152 spindles each, Campbell ball-bearing top rolls; 21 Mason Spinning Frames, 256 spindles each, Tape drive, fully equipped; 19 Mason Spinning Frames, 256 spindles each, fully equipped; and all frames equipped with individual motors and ball bearing top rolls. 4 Draper Warpers; 4 Draper Spoolers, 120 spindles each; 1 Saco-Lowell Slasher; 1 B. C. Tying Machine, 200 Draper Looms, E Model 46-in. and 50 Draper Looms E Model 40-in. equipped for individual motors. 1 Alexander & Garsed 50-in. Inspector Machine; 1 Curtis & Marble 40-in. Inspector Machine; 1 Curtis & Marble 46-in. Stitcher Machine; 1 Dunning & Boschert Press 46-in.; 1 Lathe, 10x12 Cincinnati Shaper; 1 Drill Press; 1 Hack Saw Machine; 1 Gear Cutter; 1 Air Compressor-Ingersoll-Rand.

The mill is equipped with Grinnell system heating, Globe Automatic Sprinklers, dry system; Parks-Cramer Humidifier system; Anglo-American Vacuum System; Westinghouse motors; R. D. Cole Mfg. Co. Boilers, Morse Fire Pump, 1,000 gallons per minute; small stock merchandise, lot of cord wood, several thousand feet of lumber; 1 two-ton Federal Truck; 1 Overland Dray Truck; 1 Reo Passenger Transfer; 1 mule and wagon; sufficient supplies to run mill; side track and coal trestle. Insurance at rate of \$2.2 per thousand for three years.

More detailed description will be furnished by receiver on request, an full inspection of plant invited.

TERMS OF SALE: Each bidder is required to deposit cash or equivalent to the amount of \$10,000.00 with the receiver before sale as evidence of good faith, same to be returned to unsuccessful bidders, and credited on first payment of successful bidder. Successful bidder to pay 25% of his bid to the receiver within fifteen days from date of sale which includes the deposit above mentioned; 25% of the bid is to be paid within sixty days from date of sale, and the remaining 50% to be paid within sixty days from date of third instalment or 120 days from date of sale.

The purchaser shall pay interest on all deferred payment herein at the rate of seven per centum per annum until paid, but shall have the privilege of paying all cash or anticipating payment of any deferred instalments. In case the purchaser shall fail to comply with the terms of sale, he shall forfeit the deposit herein provided for as liquidated damages, and the receiver will, on the next or some convenient salesday thereafter, resell the whole plant at the risk of the defaulting purchaser, on the same terms herein contained. No bid for less than \$300,000.00 will be accepted.

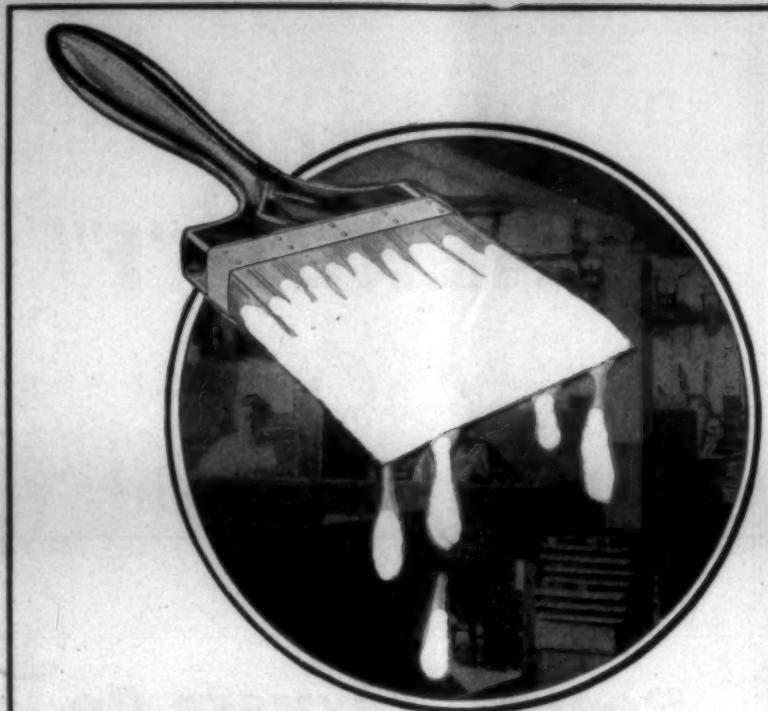
Upon full compliance by purchaser with terms of sale, a good and sufficient deed of conveyance will be delivered, conveying the fee simple title to the property.

Some of the machinery is not yet installed, and the above description has been carefully prepared, but not guaranteed.

Persons interested are invited to ask or write for booklet containing a detailed description of the property offered for sale, and are invited to make a personal inspection of the plant. All buildings are modern and substantial, and the location is ideal for manufacturing plant. The machinery is standard, modern, and in good condition.

The plant will be sold freed and discharged of all claims of creditors, liens, and encumbrances, including taxes for State and County for year 1921.

W. C. HAMRICK, Receiver of Cash Mills.



The Great Daylighters of Dark Interiors

Any manufacturer who has recently erected modern additions to his plant, knows how inadequate the lighting of his older buildings seems by comparison with the full flood of daylight which sweeps through the window-walls of his new structures. He can to a very large extent overcome this handicap of poor lighting in the less modern portions of his plant by coating the walls and ceilings with

Lucas Mill Whites

the brilliant, reflecting surface which utilizes every bit of daylight that enters the windows and diffuses it throughout the rooms. He will find that this simple measure not only promotes the well being of his organization, but adds greatly to the productiveness of his workmen.

Lucas Mill Whites are white mill whites, absorbing least light, reflecting most.

Lucas Mill Whites have great covering capacity, costing less for the same area than other mill whites.

Lucas Mill Whites stay white longer than other mill whites, due to the absence of discolored impurities.

Lucas Mill Whites properly applied, do not scale, chip or peel. They cling tenaciously to the surface, enduring for years.

Lucas Mill Whites are made in Flat, Egg-Shell and Gloss finishes. Of the three, the Flat has the greatest reflecting power.

Write our Industrial Department for further information.

Send for our Paint Standardization Plan for large industrial concerns

John Lucas & Co., Inc.

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NEW YORK PITTSBURGH CHICAGO BOSTON OAKLAND, CAL.
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*Save the surface and
you save all* *Paint & Varnish*

Lucas

Paints and Varnishes

"BRETON" MINEROL "F"

For
Cotton Piece Goods

"It gives a softer finish"

BORNE, SCRYSER CO.

Established 1874

80 South Street, NEW YORK
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BARNARD - LYNNAH, INC.

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Selling Agents For
Cotton Mills

WANTED TIRE FABRIC MILL ACCOUNTS

O. A. BARNARD, President
Was Formerly Managing Director of
J. H. LANE & CO.

(Reprint from Daily News Record)

There is real need for recognized trade customs governing what ought to be considered a "good delivery" of cotton cloths. Today, there are various ideas on this subject, often differing widely. What is fair leeway to grant a mill, in variations of width, count and weight of a cloth from the specifications ordered? This question comes up repeatedly in law suits and in arbitrations—and

the warp must be the sley times the width plus the number of extra ends to give the proper selvage.

"A greater variation is needed in the filling, as many looms are so geared as to make it impossible to give the exact pick, so 4 per cent each way would seem fair. The weight tolerance should be 1½ per cent light and 2 per cent heavy."

By way of illustration, the suggestions mentioned are shown in the following table:

	2% more	2% more	4%	1½% light
Standard Cloth Tolerance	1% less	1½ less	each way	2% heavy
Sheeting Construction for Illustration	Width	Warp	Filling	Weight
Resultant Cloth Tolerance	36-inch	56	60	4.00 yd.
	36-72 in.	57.12	62.40	4.06 yd.
	35.64 in.	55.44	57.60	3.92 yd.

each time the discussions starts all over.

There is no definite trade custom to which one might refer—which fact has been of material assistance in simplifying the work of such buyers and sellers who are always seeking a loophole through which to escape the burden of their obligations.

A constructive plan has been offered by William H. Harriss, vice-president of the Liberty Textile Corporation, which outlines, at once, a basis for establishing specific rules for general reference in cloth disputes, "Cloth tolerance" is the term which Mr. Harriss uses and it is the term which he urges for common acceptance in the trade.

Briefly, Mr. Harris' recommendation is that, in the width, the cloth tolerance be 2 per cent more and 1 per cent less; in the warp, 2 per cent more and 1 per cent less than specified; in the filling, 4 per cent either way; and, in the weight, the tolerance should be one-half of 1 per cent lighter to 2 per cent heavier than specified.

This gives immediately an opportunity for open discussion, and lays the foundation for actual trade customs that would govern all transactions. Incidentally, it is suggested that the subject is of sufficient importance to warrant conferences between the Converters' Association, and the various organizations in which the sellers and buyers are united.

Unless discussion and criticism follow the publication of this article, the assumption might be that these limitations are satisfactory and could be regarded as authoritative for guidance in arbitrations and law suits.

Taking a 36-inch, 56x60, 4.00 yard standard sheeting, Mr. Harris asks what should be the cloth tolerance for a commercial delivery. "In regard to width, some claim that not more than three-eighths of an inch below, nor more than five-eighths of an inch above should be allowed. Unquestionably, the percentage basis is the proper one, and I would suggest 1 per cent below and 2 per cent above as fair, the selvage always to be included in the total width.

"With regard to the warp, this must naturally carry the same percentage as the width, 1 per cent under and 2 per cent above, in the sley. In all cases, the total ends in

This percentage bases can be applied to all types of cotton cloths alike—combed or carded, wide or narrow, regardless of how heavy or how light. It is only through adopting such definite percentages that a standard rule can be reached, says Mr. Harriss.

The idea often used, of allowing "so many" ends in the warp, or "so many" picks, either way, is not a good basis on which to work. For instance, while one might tolerate a few picks less in the 56x60 sheeting this would never apply to a 20x12 tobacco cloth. In the tobacco cloth, the mill should be able to produce the count almost exact, so that the variation tolerated would be at a minimum. This is taken into consideration by the percentage method.

Mr. Harriss is desirous of arousing constructive criticism and discussion of the percentages of variation which he has submitted. "I believe they are more or less in accord with trade custom of the cotton manufacturers' associations and the rubberizers, although there has been no general agreement in adopting such standards through the trade."

Mr. Harriss insists that it is not fair to a mill, to have a contract read "not lighter than 4.00 yards to the pounds." In order to fill an order under such a restriction, it would be necessary for the mill man to figure on a 3.90 yard cloth, to avoid going over 4.00 yards to the pound.

"In all disputes regarding weight of cloth," says Mr. Harriss, "tests should be made only where the goods have been exposed for 24 hours to an even atmospheric temperature of 70 degrees Fahrenheit and a relative humidity of 70 per cent. Furthermore, a bale of goods must be the unit tested for weight. No piece, individually, must vary more than 2½ per cent, whereas with a bale as the unit, the variation should not be over 1½ per cent light and 2 per cent heavy."

With regard to classifying cloth as "firsts" and "seconds," Mr. Harriss is of the opinion that a definite rule can be developed. He enumerates the various possible defects, and suggests that specimens of cloth be made, deliberately, with these defects: one piece with the defects occurring frequently, another showing them occasionally, and a third piece in which there is no fault to be found. Mr. Harriss' idea is to have this work developed through the textile schools—he is now working

through the North Carolina State problems for textile schools and the College—and then have it approved by the Bureau of Commerce. He proposed Research Bureau, on which a joint committee of converters and finishers are working. Mr. Harriss believes that, just as the Department of Agriculture has succeeded in classifying the various types of raw cotton through distribution of select specimens, so that the relative value to the mill man is apparent, the same can be done with cloth. The Bureau of Commerce could furnish, on payment of a nominal sum, a convenient case, containing samples labeled "firsts" and "seconds"—and these could be used as a basis in settling disputes.

While Mr. Harriss insists that the last idea is practical, he appreciates that it is one that will take some time to perfect.

The cloth defects, enumerated, include those relating to cotton, such as trashy, blue, gin cut, ribbon, stained, weak or wasty fiber. Attention is called to cotton mixed with jute fiber from the bagging, which interferes materially with proper bleaching of a woven cloth.

Possible yarn defects are: Warp or filling or both uneven; warp or filling or both cockly; warp or filling or both motey and nitty; warp or filling or both kinky; warp or filling or both oily yellow, or oily black, warp or filling or both wide slugs; and warp or filling or both too knotty. These things, of course, all affect the woven cloth.

Defects which may occur in weaving are: Scratch-ups, pick outs, shuttle marks, ends out, warp entanglement, filling sloughs, wrong drawing, wrong reeding, poor face on cloth, smashes, thick and thin places, reed marks, loose ends on face and on selvage, coarse picks, overshots, tight selvages, sand roll damage.

Mr. Harriss also mentions certain possible incidental causes of trouble, such as:

Bowed filling—where cloth has been roughly handled in the folder or the brushing machine, this will cause the filling to bow or bias.

Turn downs—or creases, which occur when the cloth is passed through some calender roll, and if a crease gets in, it will result in the cloth being ruptured, and pinched so hard at these creases that the cloth is cut.

Short laps—where the cloth folder is so set that each lap is under the standard 36-inch yard, causing the delivery to be short of invoice yardage. Many mills have the good practice of going over these machines at regular intervals and testing them to see that they are giving correct length laps.

Poor baling—where goods will be damaged in transit.

Poor marking—where identity or origin of the goods may be easily lost.

Mr. Harriss believes there should be a recognized standard breaking strengths for standard cloths, just as is true of yarns. There should be a table for cotton cloths similar to the Draper table giving the breaking strengths of yarns. The standard breaking strengths for cloths would be a guide for mill men and a basis on which to work. Incidentally, this would have the effect of standardizing warps for various constructions, suggested as one of the

Temperature in Mercerization.

It has been made evident that nowadays the only mercerizing agents employed are the caustic alkalis, particularly caustic soda. Now the lye is active at all temperatures from zero to 212 deg. F., but in proportion as the temperature is raised the strength of the lye must be increased. The lower the heat of the lye the less concentration of it is required.

The extent to which the mercerization has gone may be judged by measuring the shrinkage undergone at different temperatures and in lyes of different strengths.

The following is from Gardner's "Mercerization der Baumwolle."

Strength

of Lye. Effect.

5° B.—None at any temperature.
10° N.—Gives a shrinkage of 1% at 36°.
15° B.—At 36° gives a shrinkage of 12.2% in 11 minutes, of 15.2% in 10 minutes, and of 16.8% in 3 minutes. At 50° gives a shrinkage of 8 in 10 minutes, and 11.8% in 30 minutes. The same lye at 96° gives a contraction of 4.6% in from 1 to 10 minutes, and of 9.8% in 30 minutes.

20° B.—The contraction is 19.2% in from 1 to 10 minutes, and 21.5% in 30 minutes at 2°. At 50° with the same lye, the shrinkage is 20% in from 1 to 10 minutes, and 21.1% in 30 minutes. At 86° the shrinkage is 19% in from 1 to 30 minutes. At 178° the shrinkage is from 13 to 14% at all times over 1 minute.
30° B.—The contraction is 22% at 36° at all times, and 22.5% at all times at 50°, 19.8% at all times at 86° and 15.5% at all times at 176°.
25° B.—The shrinkage is from 23 to 24% at all times at 36°. At 48° the shrinkage is 23.5% in 1 minute, and 21% in from 10 to 30 minutes. At 86° the shrinkage is 21% for all times and 15% for all times at 176°.

This table shows that the mercerizing time decreases visibly as the temperature rises, but only between 86 deg. and 176 deg. Hence the usual lyes of from 30 deg. to 35 deg. will mercerize perfectly well at ordinary temperatures. It was long believed that it was necessary to cool the caustic lye in order to get a good luster, and several manufacturers went so far as to install refrigerating plants. They soon found, however, that the cost of cooling was more than that of the stronger lye required to produce the same result. It is now admitted that mercerization can take place at any temperature provided that the concentration of the lye is raised with the temperature.

The last table shows besides that even at 176 deg. lyes marking 25 deg. B, 30 deg. B, and 35 deg. B, respectively (or 13, 14 and 15 degrees of

(Continued on page 23.)

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Annual Review of Cotton Situation

(By H. & B. Beer, New Orleans)

Depression in values is but a memory of the past; optimism is the keynote of the present situation, influenced by the enhancement in the value of securities, by a remarkable recovery in foreign exchange rates, a revival in industry and commerce, which is reflected in a reduction in the unemployed of 2,000,000 during the past six weeks, now numbering only 1,500,000 against the peak of 5,000,000 last summer, and because of improving international political and financial conditions.

The dawn of a return of confidence, at home and abroad, is attributed mainly to the successful program of the conference for the limitation of arms, which is a master stroke, credited to America, in the interest of the welfare of all mankind, promising a guarantee of universal peace for at least ten years, which all the world is craving for.

That the turning of the lane has been reached, that the sky is clearing and that the sun is setting, only to rise for better times, is not to be considered as visionary, as the following comparative official facts denote:

	This Year	Last Year
Federal Reserve Bank Reserve, December	74.2	44.1
Federal Reserve Discount Rate, November	4.50	7%
Sterling, demand, December 1st	\$4.04	\$3.48
Frances, cables, December 1st	7.26c	6.08c

Meanwhile foreign exchange has improved further as result of the funding bill, now before Congress, and having the President's approval, to extend time to the Allies, long

Carried over in interior, August 1st	4,690,000	2,408,000
Crop, estimated	8,340,000	13,440,000
Supply	13,030,000	15,848,000
Marketed to December 16th	6,228,000	5,562,000
Remaining to be marketed, December 16th	6,802,000	10,286,000
World's visible supply of Am., Dec. 16th	4,247,000	4,373,000
Total available, Ex. mill stocks, Dec. 16th	11,049,000	14,659,000

time terms, for the payment of their war time obligations to the United States, which measure is likely to be adopted.

Therefore, much progress has been made during the past few months to stabilize world political and economic conditions, and indications are for the making of further headway in the near future. Under the circumstances the outlook is bright for a Happy and Bright New Year in the Atlantic and the Pacific and all countries bordering on them, as well as in Central Europe.

So much having been accomplished in the interest of universal brotherly love and international trade revival, directly and indirectly, the nations have every reason to look forward to a more tranquil spirit politically and a keener competition for business in the trade routes on the seven seas, and as competition is the life of trade, the restoration of com-

mercial relations on a sounder financial and political footing, is bound to be productive of universal activity in all lines of business.

Already the textile trade has attained something alike to a boom in America, Japan and Germany, is holding its own in France, Italy, Spain, and Belgium, and it is probably only a question of time, now that the Irish question has been settled, when trade in the British Isles will improve, perhaps, more rapidly than most people think possible.

Germany promises to take about 1,500,000 bales of American cotton this season against 1,281,000 last season. Thus far this season Japan has taken 537,000 bales against only 45,000 to even date last season when she took 735,000 for the whole season, and American spinners so far this season have taken 3,251,000 bales against 2,162,000 to corresponding date last season. Since August 1st the world has taken of American cotton to date 5,988,000 compared with 3,394,000 for same period last year and 5,354,000 year before last. In other words it looks as if mills of the world will take about 13,000,000 bales of American cotton this season against 10,309,000 last season and 12,855,000 season before last.

By reason of this year's small crop and large consumption, last year's large surplus is fast disappearing, making it possible for the surplus at the close of next July being reduced to almost the point of exhaustion, so far as the distribution of stocks in the world are concerned, making it imperative for the South, as well as India and Egypt, to make large crops next year for next season's requirements.

The status of the supply of American cotton at present is as follows, compared with last year:

4,690,000

2,408,000

8,340,000

13,440,000

13,030,000

15,848,000

6,228,000

5,562,000

6,802,000

10,286,000

4,247,000

4,373,000

11,049,000

14,659,000

The world's visible supply is losing relatively so fast compared with last season that it is now only 4,247,000 bales against 4,373,000 last year, or 126,000 smaller than one year ago, whereas it was 1,253,000 larger than last season on August 1st; it will likely lose much faster than last season in the future owing to prospects of much smaller ginnings from now on than after this time last year, also because of spinners taking promising to continue to run larger than after this date one year ago.

The foregoing being the probabilities as regards this season's supply, which points to higher prices eventually, the trade has to reckon with the outlook for next year's crop, which is not at all encouraging for the making of a moderate, much less a large crop, and the trade will undoubtedly need a big production, at least 13,000,000 bales for season of 1922-23, whereas this year's crop is

officially estimated at only 8,340,000 the continued growth and progress of Greenville and of this section.

Taking the government's revised figures on this year's acreage—32,322,000 acres, it is found that the yield per acre this year is only 126.9 pounds, the smallest ever known, comparing with 174.4 last year, due principally to damage by weevil.

Varity being the spice of life, diversification should be the salvation of the South, as its mild climate and fertile soil permits the growing of nearly all of the necessities of life, and should be followed on a more extensive scale next year, not at the expense of cotton, but as an assurance against the possibility of another cotton crop failure in event of the weevil becoming destructive, as was the case this year, which has put farmers in a worse condition financially than they were in during last year's deflation movement and demoralization in the markets.

Because of the destruction wrought by the weevil this year, there is grave apprehension as to results of next year's crop. Even if next year's acreage is of record breaking proportions, or say about 37,000,000 acres, and if the yield per acre should be as small as it was this year, 127 pounds, not more than 10,000,000 bales would be produced.

Truly, the situation, from the indicated productive point of view, is serious, and deserves more attention on the part of the Federal and State governments to eradicate the pest, or at least check their destructive work, else the world will likely feel the effects of a famine in raw cotton and cotton goods, perhaps in the not far distant future.

The market of late has awakened a bit owing to a slight improvement in the demand for goods and raw cotton, and only reflects what will probably happen, perhaps on a large scale, in the way of an advancing market, should the demand become urgent.

We entertain a very favorable opinion of the market, present and future, and favor buying, particularly on important depressions, as it is probably only a matter of time, perhaps sooner than generally expected, when the demand and trading will broaden, in which event higher prices, perhaps much higher, may reasonably be looked for.

V. M. Manning Leaves Stock Firm.

Greenville, S. C.—Effective January 1, Vivian M. Manning retired from the stock and bond brokerage firm of Mills & Manning, one of the most prominent in the South, to become general manager of a new mill supply department to be established here by Norris Brothers, and Thomas L. Lewis, now manager of the stock and bond department of Parrish, Gower & Springs, became associated with Henry T. Mills in a brokerage firm to be known as Mills & Lewis.

Henry T. Mills, senior member of the firm, is one of the leading stock brokers of the section. He has been engaged in this business in Greenville since 1907, and has long been identified with the business and social life of this community. Under the new regime, the firm plans to expand its business in keeping with

Mill Employees Enjoy Banquet.

Spartanburg, S. C.—Seventy employees of the Drayton Mills enjoyed a banquet Thursday night in the community house. All of the employees had been continuously in the employ of the mill for ten years or more. Two of them had been with the mill since it was first started in 1902. The meal was served by young women, all of whom lived in the mill village for 15 years or more.

India Cotton Trade Calls for Machinery.

Manchester, Eng.—Lancashire textile machinists have their order books filled with contracts for the shipment of machinery to India, delivery within three years being stated.

The Manchester Evening Chronicle quotes the director of one of the leading textile machinery firms as saying that 50 new mills are contemplated at Ahmedabad, mostly for spinning, but a number for both spinning and weaving.

Attention!

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Thursday, January 5, 1922.

SOUTHERN TEXTILE BULLETIN

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THURSDAY, JANUARY 5, 1922.

Record Sale of Preferred Stock.

On last Thursday the Independence Trust Company of Charlotte advertised for sale a \$650,000 issue of preferred stock of the Henrietta Mills of Caroleen and Henrietta, N. C.

Although the advertisement was placed in only four North Carolina newspapers, the entire issue was sold before Saturday night or in less than three days.

We do not believe that any issue of this kind was put over even in the boom period in such a few days and it certainly indicates that there is more money for investment than is generally supposed.

The object of the preferred stock issue by the Henrietta Mills was to complete the payment for the plant of the Cherokee Falls Manufacturing Company, which was purchased by the Henrietta Mills last year.

Cloth Tolerance.

In this issue we are reprinting an article from the Daily News Record of New York on "Cloth Tolerance."

This article gives the opinion by Wm. H. Harriss of the Liberty Textile Corporation of New York and is an aftermath of his address before the Better Goods meeting of the Southern Textile Association at Charlotte last September.

The Daily News Record has sent a copy of this article to about one thousand cotton mills and cloth buyers and it is expected that a very interesting and beneficial discussion will result.

The term "Cloth tolerance" is based upon the fact that no piece of goods is woven absolutely perfect and that some allowance or tolerance must be made in order to grade any goods as firsts.

As matters now stand there are no standard rules for the division of cloth with first or seconds and the buyers are at liberty to reject goods as seconds when the market goes against them that would have been passed as firsts had there been no decline in prices.

We have all heard superintendents brag about the amount that they had reduced the seconds since they took charge of a mill and yet in many such cases they had merely placed a larger portion of the seconds into the first.

The Weavers' Division of the Southern Textile Association started the movement for the standardization of firsts and seconds and it is very gratifying to see the present discussion develop as an aftermath of the address made by Mr. Harriss last September.

Looking Forward.

One financial and business prognosticator has aptly said that there will be plenty of business in 1922 for the man who will take a lantern and go out to look for it.

He meant that he was afraid to predict a strong revival of business because he made that prediction on January 1, 1921, and it did not come true and he thought it best to hedge this time.

Most of the financial and business writers have devoted most of their

space to reviews of 1921 and have touched lightly and carefully upon the prospects and problem of 1922 due probably to the errors that most of them made in foretelling 1921.

We have wasted no time in reading the histories of 1921 but have studied carefully the predictions for 1922 because the old year with its sorrows and its mistakes is gone and we are standing expectant at the threshold of a new and we hope a better year.

Thinking men realize that our prosperity depends now and will always in the future depend to a large extent upon the conditions in Europe and the rest of the world and that the Great War has brought the countries of the world into such close relations that none can live unto themselves.

As we are dependent upon the foreign situation, following extract from Bradstreet's annual review will be found interesting:

"The foreign situation seems to have many more elements of strength than would seem possible from a cursory glance at the past. If the calculations of the department of commerce as to volume versus value of trade are correct, a better demand exists than a year ago—at a price. The political situation abroad looks far better than one or two years ago despite the woeful condition of the central European exchanges. The collapse of the printing-press brand of money should have some lessons for our own "medicine men" and quack doctors who would create values by fiat. With protection guaranteed by the stronger powers against incursions of the eastern hordes, who have admitted that their own combination of socialism and murder has failed to bring about the millennium central Europe should rally because its people are mainly workers and have not arrived at the point, reached by some advanced thinkers nearer home, where they believe men can live by agitation alone."

The European Situation and American Business.

(Edward A. Filene)
(Courtesy American Mutual Magazine)

During the past summer I made a long study tour through nine of the principal nations of Europe. It was my purpose to investigate conditions at first hand and to find out what relation, if any, existed between our business depression and the big unemployment problem on the one hand, and the unstable economic circumstances in which most of the European nations find themselves on the other. My travels took me to England, France, Germany, Czechoslovakia, and Austria, and then beyond to the Balkan States, where I spent considerable time. I came back to this country thoroughly convinced that our business problems are not merely national, but international, in their scope, and that American business can be restored to prosperity only through the restoration of European business to a sound economic basis.

We have millions of people out of work in this country. And why? Surely it is not because there is no work to be done. Thousands and thousands of homes are needed. Our railroads need new equipment, yet the steel mills are closed or running on part time only. The mines have large surpluses of iron, but the mills have little use for it because there is no market for the manufactured product. And when our big mills and factories cannot use our raw materials, we must necessarily have thousands of idle ships, thousands of idle locomotives and freight cars, and millions of idle workers. Here we have a complete and particularly vicious circle.

But is there no market for our surpluses? Are there no countries which need the goods we can manufacture, so that we may open up our factories to supply them and put our unemployed at work?

Let me answer these questions by telling you what I saw from the train window as I traveled through Central and Eastern Europe. We went past miles of locomotives and cars rusting and rotting on the sidings. In Serbia the train crawled cautiously over frail temporary trestles because the railroad bridges had all been destroyed in the war. At the hotel where I stopped in Belgrade the elevator could not run because the electric motor had been taken out during the war and had never been replaced.

Here, then, you will say, is an excellent market for our goods, and we should not have to complain of curtailed production. And we could make it so.

It is true, of course, that Europe is in desperate need of our exports; but she cannot buy except on long-term credits. The currency in many of the countries has depreciated to such an extent that it is practically valueless. The men with whom I talked—big business men, bankers, government officials—emphasized always the need of credit for importing American machinery and raw materials in order to make a real start toward reconstruction.

It might be supposed that we could safely extend credit to these countries for ten, fifteen, or even twenty years. We did a credit business with them before the war. Why not now? Surely their assets are not completely exhausted.

That is perfectly true. In the Balkans I rode for hours through as fair an agricultural country—potentially, at least—as one might hope to see: broad, fertile, grain-raising plains, as in our Middle West. And I passed for miles through rich oil fields.

What, then, is the reason for withholding credits? Unstable conditions in all these countries. And the cause for this instability? In my opinion it is the fear of new wars to come. This fear can be observed throughout Europe. It is causing rich agricultural countries to make of themselves forced, hot-house industrial concerns. They are afraid of being defenseless against attack. The effort is not to build for the economic but for the military contingencies of the future.

To carry out this policy the nations are setting up tariff walls;

they are passing laws to protect the infant industries; they are seeking to export without importing. The effect on our trade is apparent, and the reaction on their own currencies and the credit situation is disastrous. In other words, we are now witnessing an economic war in Europe which is causing increasing hatreds between the nations and is full of peril, not alone to Europe, but to the possibilities of peace throughout the world.

I hope and believe that the conference now going on in Washington can find the remedy for this situation and can effect the establishment of world peace. In fact, the outstanding deduction of my European observations is that the restoration of American business can be helped by President Harding's Limitation of Armaments Conference more than by anything else in the world today.

I can perhaps best illustrate the relationship between the Washington Conference and our getting back to normal business prosperity by repeating fifteen points that I recently made:

1. We have millions of unemployed in the United States.
2. We have greater surpluses and greater producing ability than ever before in the United States.
3. Europe needs our surpluses and our producing ability more than ever before.

4. If we could sell freely to Europe we could put our unemployed back at work and have great prosperity.

5. But Europe is poor as the result of the war, and can buy only on long-term credits.

6. Long term credits are impossible unless the danger of new wars in Europe is lessened and important reductions in armaments are brought about.

7. But the reduction of armaments is impossible unless there are adequate guarantees of the protection for which armaments are intended.

8. Such guarantees, satisfactory to the citizens of any nation, cannot be furnished except by an association of nations of which every important sea or land power is a part. Lack of co-operation by any one of the great nations is fatal.

9. Because one great nation, the United States, is out of the present association of nations, there are being formed in Europe today new balances of power among the nations.

10. Balances of power are dependent on military strength, and must result in new rivalries in armaments.

11. Therefore if the Washington Conference is really to bring about a reduction of armaments, it must furnish the guarantee of protection necessary before any large or small nation will effectively reduce its armaments.

12. If this guarantee is furnished, then the strong Balkan nations can devote their power to the development of their great agricultural wealth and cease the present economic wars that threaten to bring on new military wars.

13. If this guarantee is given, then France can afford to take the risk of a Germany strong enough indus-

trially to be able to pay the indemnities.

14. If the Balkans and France and Germany are really at peace again, the outlook for world peace will be good, and we in the United States will be able to sell our goods to Europe without undue risk on long-term credits.

15. Selling our surpluses and other goods to Europe will make a better demand all over the world for our production, and will therefore put our unemployed back at work and bring us great prosperity.

Peace and prosperity have their price. That price is co-operation with the nations of the world for the reduction and limitation of armaments and the stopping of disastrous economic wars. Upon the success of the Washington Conference to bring about such a co-operation—co-operation effective enough to make limitation and reduction of armaments really safe—depends, I believe, the solution of America's problem of unemployment and the restoration of our business prosperity. And we should make it quite clear to the President and his associates at the conference that we are ready and willing to pay the price for world peace.

Activity in the Cotton Spinning Industry for November.

Washington, D. C., Dec. 28.—The Department of Commerce, through the Bureau of the Census, announces that 36,697,846 cotton spinning spindles were in place on November 30, 1921, of which 34,486,669 were operated at some time during the month, compared with 34,221,646 for October, 33,898,415 for September, and 31,700,014 for November, 1920. The aggregate number of active spindle hours for the month was 7,689,258,490. Based on an activity of 24½ days (allowance being made for the observance of Thanksgiving and Armistice Days in some localities) for 8.7 hours per day, the average number of spindles operated during November was 36,074,401. This number compares with an average of 34,579,765 for October, and 34,322,831 for September.

From data obtained from the individual establishments the regular hours of operating per week (single shift) in the cotton mills vary from 48 in a number of States to as high as 60 in others. Weighting the number of spindles with the prevailing hours for the several mills, it is found that the regular hours of operation per day on a single shift basis for the entire country is 8.7, which was used in the computation above. The average number of active spindle hours per spindle in place for the month was 210.

Danville Knitting Mill.

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Such goods can be guaranteed, to be permanently white; without weakening the fibre; free from irritating chemicals; of highest elasticity and softness.

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The Dana S. Courtney Co.
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Southern Agt, A. B. CARTER, Gastonia, N. C.

MILL NEWS ITEMS OF INTEREST

York, S. C.—The Nelly Mills have paid a semi-annual dividend of five per cent.

York, S. C.—The Travora Mills have paid a semi-annual dividend of five per cent.

Anderson, S. C.—The Toxaway Mills paid a 5 per cent dividend January 2, this company paying a semi-annual dividend. Riverside Mills, which pays quarterly, will pay a 1½ per cent dividend.

Concord, N. C.—Machinery is now being installed in the new Hoover Hosiery Mill on West Depot street. Some of the machinery is being transferred from the present home of the plant, and new machinery is also being installed. The new home of the plant is modern in every respect and is much larger than the old headquarters of the company.

Talladega, Ala.—The Talladega Foundry and Machine Company, which some time ago purchased the Sylacauga Cotton Mills, Sylacauga, Ala., plans to put the plant back in operation within the next few months. The machinery, which is now idle, will be moved to Talladega if the plans are carried out.

Danville, Va.—The Riverside and Dan River Cotton Mills at Danville are closed down this week, in accordance with an annual custom to give its employees a holiday during the Christmas season. It was made clear in the announcement that suspension of operations in no wise reflected business conditions.

Spartanburg, S. C.—Eighteen cotton mills and 22 banks of Spartanburg city and county are paying \$648,663 in dividends, according to statements compiled by A. M. Law & Co. and C. P. Wofford & Co., of this city. The textile plants pay \$576,783 of the total given above and the banks \$71,880.

The mills' dividends show an increase of \$19,653 over July 1 dividends. Business men locally are greatly pleased.

The highest dividend was that of the Woodruff Mill with 10 per cent on \$525,000 common stock. The highest bank dividend was Pacolet, paying 10 per cent.

Electric Repairing

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Winding
Small Motors
Rewound and
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Humidifier
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We sell WESTINGHOUSE Motors

Lomax Motor Repair Co.
23 1-2 W. Trade St., Charlotte, N. C.

E. S. DRAPER
CHARLOTTE NORTH CAROLINA
LANDSCAPE ARCHITECT
and CITY PLANNER
MILL VILLAGE DEVELOPMENT

St. Pauls, N. C.—The new McEachern Cotton Mills have completed the erection of the mill's buildings and cottages. The entire equipment of machinery, which was furnished by the Mason Machine Works, has been shipped and is now being installed. The new plant will have 5,040 spindles and will make yarns.

Greenville, S. C.—With the return to full-time operation January 1 of the Ware Shoals Manufacturing Company's plant No. 2, at Ware Shoals, S. C., virtually all of the mills of this section will be on full time operation. Many continue to run night shifts in some departments.

Greenville, S. C.—In order to acquaint the public of this section more fully with the work of Greenville's 22 cotton mill plants and with other industries located here, citizens of Greenville are planning an "Open House Week," beginning January 16, which is to be featured by the throwing open of the doors of cotton mills to the public that they may see and learn more of the technical end of the textile business. The week is expected to attract to the city large numbers of visitors from all parts of the section and is receiving the cordial support of retailers here.

Greenville, S. C.—Additional announcements regarding dividends paid as of January 1 by cotton mills of Greenville and this section were obtained from mill officials, these coming in addition to those published last week.

Brandon Mills is paying three per cent semi-annual on its common stock of \$957,000, and the regular three and a half per cent semi-annual on its preferred stock, \$500,000.

The Pelzer Manufacturing Company is paying three per cent semi-annual on its capital of \$3,000,000.

Poinsett Mills is paying three per cent semi-annual on its capital of \$470,000.

The Woodruff Mills is paying the regular five per cent semi-annual dividend and in addition a cash extra dividend of five per cent, making a total of ten, on its capital of \$525,000.

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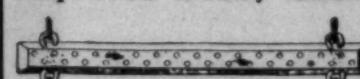


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Charlotte "Clean Quality" Leather Belting on your pulleys is insurance indeed against any belt trouble arising to upset your schedules.

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Over the leather system before placing orders for new machinery, or if contemplating an increase in production, have them applied to their old machinery. It is applied successfully to the following carding room machinery:

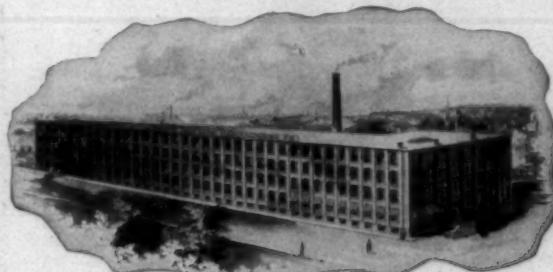
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The Situation in German Textiles

Textile operators in this market have been discussing with avidity the opportunities for the distribution of German made goods in this country and the likelihood of considerable importations of such goods in view of reports received here that German mills were "sold out" and were working day and night to meet delivery requirements. Some of the best posted observers believe German mills are in no position to make deliveries on an extensive scale, first because their own requirements are rather large, and secondly, for the reason they are demanding payment in dollars which American manufacturers of apparel and jobbers decline to consider in the majority of instances, says the Journal of Commerce.

speculative nature of the present movement.

Producers are overwhelmed with orders, and are at their wit's end in trying to deal with the raw material problem. Such is the glut of contracts that most mills could readily operate ten hours a day without any fear of serious opposition by labor. The safeguarding of the eight-hour day is a plank in the trade union platforms, supported—as far as Saxony is concerned—by a special regulation issued by the Saxon Minister of Labor (the late president of the Textile Workers' Union) by which the unions are vested with far-reaching authority in vetoing overtime work. Yet strict adherence to the eight-hour day is unlikely, as the exigencies of the present situation are recognized by the saner element in trade union circles. In some cases the decisions of unions have been ignored by the workers, and in others the local executive has lacked the necessary hold on the men.

In this connection the remarks of the Berlin correspondent of the London "Times" trade supplement are highly interesting. They follow:

"Ausverkauft"—sold out—that is the answer one gets from 90 per cent of the German textile mills no matter what branch is asked to quote for delivery during the first quarter of 1922. Many mills are even sold out right into the second quarter of next year, orders for summer wear having poured in before winter deliveries were completed. In short, the German textile industry is at the present moment operating to the limit of its capacity.

During a visit to the principal textile centers, your correspondent had an opportunity of discussing the present boom with bankers, manufacturers, trade union officials, and workers. Concerning the reasons for the unparalleled boom, there is considerable divergence of opinion, but it is generally agreed that the heavy depreciation of the mark started the unprecedented run on textiles.

The pressure of demand is tremendous and, as far as the home market is concerned, reveals the fact that the requirements of vast sections of the public, due to the shortage of supplies during the war, have not yet been filled. Purchases have again and again been deferred throughout the past three years in the hope of lower prices, but the sharp drop in the value of the mark seems to have struck the public with panic and largely accounts for the

To an alternative method of increasing production, viz., running two shifts, no opposition is offered. Double shifts, with hours usually from 6 a. m. to 2 p. m. and 2 p. m. to 10 p. m., have been introduced in most dyeing and finishing shops. Many spinning and weaving mills are doing the same, though in these branches the two-shift system is less in evidence owing to the lack of skilled labor. The efficiency and discipline of the men, though not quite up to the pre-war standard, are on the increase, and so is the relative output. About 10,000 workmen in some parts of Eastern Saxony are at present on strike for higher wages, but this dispute will probably be settled ere long. Unemployment is virtually non-existent. The latest returns of the Textile Workers' Union, comprising 333 reporting branches and representing 615,737 members, gives the percentage of the unemployed at 0.5.

In every section of the textile industry the demand for goods is extraordinary, quick and prompt delivery being of first and prices of second importance. The ominous term "Freibeiband"—prices not guaranteed—has made its reappearance, together with the sliding scale principle. Both are meeting with resistance on the part of consumers and

commercial associations. It is hardly surprising that spinners and weavers are inclined to back out of old contracts and pay the agreed penalties rather than effect deliveries.

Chemnitz is all hustle. There is next to no unemployment and factories could easily absorb additional skilled labor if any were available. Gera, with 19 weaving, two worsted spinning, two knitting yarn spinning, and three carpet weaving mills, as well as six dyeing and finishing shops, is now giving employment to about 9,100 workers, equal to 12 per cent of the population, as compared with 6,700 workers at the beginning of December, 1920. As everywhere stocks are either un procurable or fetch fancy prices.

At Glauchau, a town of 26,000 inhabitants, of which 6,000 are employed in the textile branches, only 18 unemployed—mostly invalids—are recorded. The two worsted mills have been operating on double shift for some months.

By far the most important problem confronting the industry at present is that of obtaining supplies of raw materials. It will be recalled that orders flooded the industry almost in a single night at a time when stocks of manufactured goods were low while those of raw material were sufficient. The former were cleared off very rapidly. Raw materials have also been speedily worked up and were but slowly replaced, as manufacturers predicted only a short-lived boom. Recent developments have, however, clearly shown that the buying activity of the public has been greatly underrated. At the time of writing no abatement in purchases has yet occurred, but prices for raw materials have meanwhile reached a level that fills producers with dismay. Cotton has increased by more than 600 per cent since July, chemicals by 300 to 400 per cent, wages by 30 per cent. Coal prices and freight rates, too, are higher.

The position is unique in many respects. On the one hand, producers are overwhelmed with orders; on the other, inflated prices combined with the fluctuations of the mark and the general economic uncertainty are upsetting all calculations. The state of affairs is less risky for mills having substantial export orders on their books, but the others—especially the weaker element—dare not get in further supplies at present. The result is that in Apolda and some other places in Thuringia several mills have had to discharge men, although well supplied with orders. Everyone is hoping for a fall in the foreign exchange rate; meanwhile, however, buying has dwindled. Any temporary improvement in the mark being turned to advantage.

There is no doubt, and the fact is seldom concealed by manufacturers, that large profits are being made. Apart from the watering of capital and the creation of large sinking funds, profits are invested in real values. During the period July-October twenty-eight new companies with an aggregate capital of nearly 127,000,000 marks were incorporated, while fifty-seven existing companies increased their share capital by 302,-

310,000 marks. New mills are being erected and plants extended, factory equipment thoroughly overhauled, obsolete and wornout machinery replaced and plants brought up to date in every respect. Under the existing regulations export of used machinery and equipment is permitted provided sets are replaced by new machinery, and mills are availing themselves of this possibility to a large extent. Profits are applied largely to the insurance of plant, a process which helps to lighten taxation.

Temperature In Mercerization
(Continued From Page 15)

mercerization). It is true that between 36 deg. and 50 deg. the shrinkages are respectively 20 per cent, 22 per cent, and 25 per cent for the same strength of lye, but the differences are not considerable.

Experiments have been made below 32 deg. and even as low as 23 deg. with weak lyes, but no advantage was obtained.

Another interesting fact is that the mercerizing action is, so to speak, instantaneous. In fact, for every degree Baume, and at every temperature, the amount of mercerization is practically the same whether the operation lasts one minute or half an hour.

Thus at 30 deg. and 35 deg. B, and at the ordinary temperature at 50 deg. the shrinkages or mercerization degrees remain always at from 22.5 to 23.5 per cent, whatever may be the mercerizing time. It is even observable that when a 35 deg. B lye is used at 50 deg. there is a sudden contraction of 23.5 per cent during the first minute, followed, however, by a relaxation to 21 per cent during further action up to half an hour. The first effect may be called super-mercerization, or initial suspension, which is replaced afterwards by a state of stable equilibrium.

In conclusion it may be stated that the best strength of lye for mercerization is from 30 deg. to 35 deg. B, and the best temperature from 48 deg. to 50 deg. C, and these require no special precautions to ensure.—Dyer and Calico Printer.

Toccoa Cotton Mills.
Toccoa, Ga.

J. B. Bailey Supt.
W. A. Whitworth Carder
Geo. Dooley 2d Hand Carding
J. J. Davis Spinner
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STANDARD DYES of UNIFORM QUALITY

FAST LIGHT YELLOW—

The Fastest Sunlight Resisting
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KANAWHA CHROME BLACK E H K—

Soluble, a Jet Black suitable
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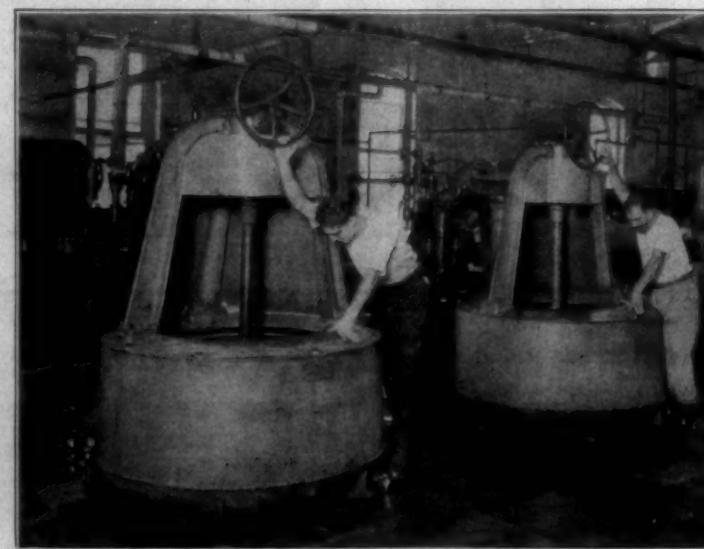
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Thursday, January 5, 1922.

Utica Mills Reduce Wages and Increase Working Hours.

Utica, N. Y.—An increase in working hours from 48 to 54 per week and a reduction of 12½ per cent in wages was announced in 12 of the largest textile mills in this city. The change is effective January 9. The total reduction in wages since 1920 is about 35 per cent, but the manufacturers say that the new scale will keep wages above the pre-war level.

New England Mills May Cut Wages.

Boston—If the statement of the American Woolen Company, that it was not going to reduce wages had not been given out until after the first of the year, it is likely that other New England mills would have definitely decided upon a new wage scale which would have become effective probably February 1. This is the opinion of some prominent men in New England who are close to the situation and who declare the wage schedule is the most discussed topic in textile centers at the present time.

Conferences have been held in different mill centers to consider the problem and others are scheduled. In one large city the mills are ready to reduce wages 25 to 33 1/3 per cent, the figures representing two extremes of opinions voiced.

There seems to be absolutely no doubt in the minds of mill owners that wages must be reduced. But two points seem to be blocking re-

duction at present, aside from the American Woolen Company announcement, one being the percentage of the cut and the other, which mill group will take the initiative in announcing it.

Metz Offers New Colors.

Fast Acid Red R. G.—This is a new dyestuff of more than the average fastness to light, it is level dyeing and can be used in combination with Metz's Fast Light Yellows and Alizarine Direct Blues for various fast to light shades on ladies' dress goods and on similar piece goods, and on sweater yarns, the makers state.

Sulphur Black M. W. Conc.—This is a concentrated type of Metz's Sulphur Black M. W. It does not only produce a deep black of natural hue as is principally required for cotton goods, but is distinguished for its excellent general fastness properties and it is also extremely soluble therefore suitable for all branches of cotton dyeing, especially machine dyeing, according to the manufacturers.

Sulphur Black M. W. Conc. is used with equal advantage for loose material, roving, yarn, cops and warps. On piece dyeing it does not bronze.

Sulphur Black M. W., single strength, recently brought out by H. A. Metz & Co., Inc., also possesses a good money value.

Samples and quotations of the above colors freely given upon request.

A Record Like This Would Show you Why you Should use "UNION" Fuses

Many concerns lose big sums of money every year on fuses because they have no system for checking the life of so-called "Renewable" fuses. Such a system would show that the ordinary fuse has a much shorter life than is commonly supposed.

In lieu of a checking system—which, after all, is perhaps impracticable—the safest thing to do is to use the fuse that has a known record for the greatest number of blowouts!

Under actual test, time and time again, "Union" Renewable Fuses have left all competitors far behind.

Another point in which the "Union" excels is simplicity of design—absence of intricate parts. Its simple construction permits taking the fuse apart and putting it together again more easily and more quickly than any other make. This means not only a saving of time for the workman—a saving of time for the firm—but also a saving of good fuses. Thousands of dollars worth of hard-to-renew fuses are thrown away after they have blown, instead of bothering to put in a new link.

"Union" Fuses, both Renewable and Non-Renewable, are for sale by all leading jobbers and dealers. The National Board of Fire Underwriters have given both types their very highest approval.

Free Descriptive Booklet on Request

The "Union" Saves More Than ANY Other Renewable Fuse

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Manufacturers of Switch and Outlet Boxes, Cut-Outs, Fuse Plugs, Automobile Fuses, Renewable and Non-Renewable enclosed Fuses

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Order them from Stock



**STEEL SHELVING
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This Laminar Roving Can is Seamless—It is as smooth as glass, inside and out—Has a strong, turned over top—And it's made of Vul-Cot Fibre—as tough as horn.

Make sure that your order ALWAYS calls for Laminar cans, boxes, barrels, trucks and baskets.

We'll send you our book "Receptacles that Stand the Gaff."

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Tallow, Soluble Grease, Soluble Oils, Gums, Glues, Gum Arabol, Lancashire Size, Waxes, Finishing Pastes, Soaps, Glycerine, Ready-made easy Size, Sago and Tapioca Flours, Dextrines, China Clay, Soluble Blue Bone Grease, Bleachers' Blue.

SPECIAL COMPOUNDS FOR WARPS, WHERE STOP MOTIONS ARE USED.

WEIGHTING COMPOUNDS FOR COLORED AND WHITE WARPS.

FINISHING COMPOUNDS FOR ALL CLASSES OF FABRICS.

The Arabol best grades of cotton warp sizing compounds make the "finest weaving and will hold the fly."

These compounds are based on the best practical experience and the best materials used in their manufacture.

ALSO HOSEY FINISHING AND BLEACHINGS



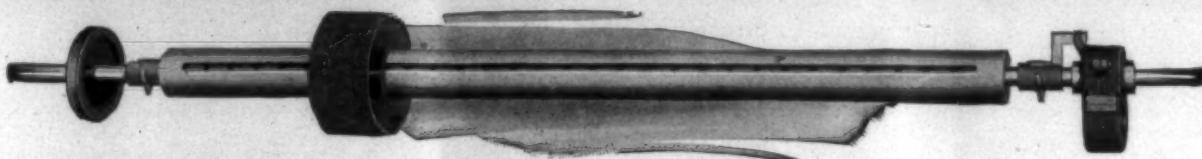
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which tells why Slip-Not Belting is Better Than Other Leather Belts.

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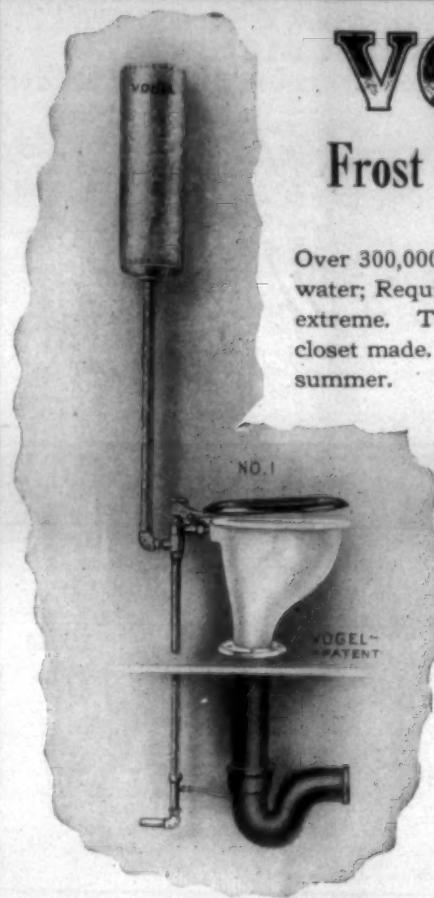
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Enamelled roll flushing rim bowls.

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Strong hardwood seat.

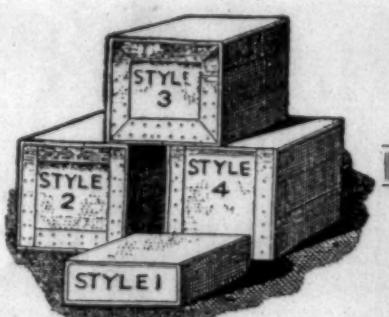
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These boxes are built of timber taken from our own lands, in four styles as shown; present a neat appearance, and are made to carry heavy loads.

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SPARTANBURG, S. C.

BROKERS

Dealers in Mill Stocks and other

Southern Securities.

Week Ending December 31, 1921.

	Bid	Asked
Abbeville Cotton Mills	105	—
American Spinning Co.	250	—
Anderson Cotton Mills	75	—
Aragon Mills	190	215
Arcade Cotton Mills	—	115
Arcadia Mills	200	—
Arkwright Mills	200	—
Augusta Factory	41	—
Avondale Mills, Ala.	500	—
Banna Mills	100	210
Beaumont Mfg. Co.	230	—
Belton Cotton Mills	85	71
Belton Cotton Mills, pfd.	65	—
Brogan Mills	71	—
Calhoun Mills	165	150
Chesnee Mills	—	—
Chiquola Mills	130	—
Chiquola Mills, pfd.	77	—
Clinton Mfg. Co.	107	—
Clinton Cotton Mills	200	—
Columbus Mfg. Co., Ga.	150	—
Cowpens Mills	75	100
D. E. Converse Co.	—	—
Dallas Mfg. Co., Ala.	175	—
Darlington Mfg. Co.	—	80
Drayton Mills	39	76
Dunear Mills	72	90
Dunear Mills, pfd.	83	—
Eagle & Phenix Mills, Ga.	125	—
Enterprise Mfg. Co., Ga.	85	—
Exposition Cotton Mills, Ga., 300	—	98
Gaffney Mfg. Co.	—	—
Gainesville Cotton Mills, Ga.	100	60
Glenwood Mills	100	—
Gluck Mills	100	—
Graniteville Mfg. Co.	150	—
Hamrick Mills	120	115
Hanes, P. H. Knit'g Co.	11 1/2	—
Hanes, P. H. Knit'g Co., Pfd.	100	104
Hillside Cotton Mills (Ga.)	250	275
Imperial Yarn Mill (N. C.)	135	151
Inman Mills	82	88
Inman Mills, pfd.	92	—
Hartsville Cotton Mills	250	350
Hermitage Mills	100	—
Inman Mills, pfd.	93	—
International Mills (par \$50)	33	—
Jackson Mills	150	—
Judson Mills	90	—
King, John P. Mfg. Co., Ga.	125	150
Lancaster Cotton Mills	200	—
Laurens Cotton Mills	80	100
Limestone Cotton Mills	120	130
Marion Mfg. Co., N. C.	—	136
Mariboro Mills	71	73
Massachusetts Mills, Ga.	146	150
Mills Mfg. Co.	175	200
Mollohion Mfg. Co.	103	110
Monarch Mills	110	120
Newberry Cotton Mills	100	115
Ninety-Six Mills	150	—
Norris Cotton Mills	—	105
Oconee Mills	125	—
Orr Cotton Mills	90	—
Orr Cotton Mills, pfd.	87	—
Pacolet Mfg. Co.	125	—
Pacolet Mfg. Co., pfd.	93	—
Pelham Mills	—	83
Pelzer Mfg. Co.	100	115
Pickens Cotton Mills	100	—
Piedmont Mfg. Co.	112	—
Poe, F. W. Mfg. Co.	—	102
Poinsett Mills	—	85
Riverside Mills (par \$12.50)	9	11
Saxon Mills	85	100
Sibley Mfg. Co., Ga.	48	55
Spartan Mills	107	—
Toxaway Mills (par \$25)	28	30
Tucapan Mills	—	220
Union-Buffalo Mills	—	24
Union-Buffalo Mills, 1st pfd.	76	—
Union-Buffalo Mills, 2d pfd.	37	—
Victor-Monaghan Co.	80	82
Victor-Monaghan Co., pfd.	98	—
Ware Shoals Mfg. Co.	140	—
Watts Mills	—	110
Watts Mills, 1st pfd.	—	80
Watts Mills, 2nd pfd.	—	95
Whitney Mfg. Co.	—	190
Williamston Mills	200	—
Woodruff Cotton Mills	150	175
Woodside Cot. Mills, pfd.	71	75
Woodside Cotton Mills, pfd.	—	72
W. S. Gray Cotton Mills	90	—

Southern Mill Stocks

Quoted By

R. S. Dickson & Company

Gaston, N. C.

Greenville, S. C.

Week Ending Dec. 30, 1921.

	Bid	Asked
Acme Spinning Co.	82	86
Arcadia Mills	200	—
Aileen Mills	—	50
Am. Yarn & Proc. Co.	105	115
Amer. Yarn & P. Co.	105	108
Anderson Cotton Mills	73	—

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November Exports of Cotton Cloths.

Washington, Dec. 30.—Greater activity was shown in the November exports of cotton cloths to such markets as the Philippine Islands, Central America and Haiti despite a decrease in the total for the month of 17 per cent from the October figures, announces the Department of Commerce. The November yardage for cotton cloths of all kinds was 53,421,701, against 64,488,510 yards in October, 1921, and 58,593,448 yards in November of 1920.

Twice as much unbleached cotton cloth was shipped abroad during November, 1921, as in the same month of the previous year, the respective totals being 18,672,825 yards and 9,031,425 yards. The principal markets to which unbleached goods went were: Turkey in Europe, Greece, Chile, India, Haiti, Salvador and "other Central America," each one of which took considerably over a million yards. India, Turkey in Europe, Aden, China and Chile were the countries to which shipments of unbleached goods were smaller than in the preceding month.

While the total number of yards of bleached goods exported in November (9,528,041 yards) was approximately 20 per cent below the quantity exported in November, 1920, there was an increase of 9 per cent over the October export of these goods. The Philippine Islands continued to be the principal destination of bleached goods during November, and Canada was another important buyer. China took less than one-third the yardage of bleached goods in November than it did in October and accounted for much of the month's aggregate loss.

November exports of printed cotton cloth (11,274,692 yards) were 21 per cent above those of the same month a year ago and considerably better than those of October, 1921. Principal gains in exports of printed goods were to the Philippine Islands and Central America.

Exports of piece-dyed cotton cloth for November (5,947,941 yards) were only 40 per cent of the total for November, 1920, and were slightly under the total for October, 1921, as well. The largest purchasers of these goods in the month under review were Canada, Central America and Argentina. The first mentioned country is the only one to which exports under this classification improved to any marked degree.

Shipments of yarn-dyed cotton cloth (7,629,949 yards) continued to decline during November, being less in both the preceding month and November, 1920. However, encouraging gains over a year ago were noticed in the exports of this class of goods to the Philippine Islands, Haiti, Chile and Mexico.

Total exports of cotton piece goods from the United Kingdom during November, 1921, increased over October from 342,500,000 square yards to 363,500,000 square yards. The principal gains were to China, Bombay, Egypt, the United States, Straits Settlements, Australia, Argentina, Switzerland, Belgium and Japan. The largest shipments during the month were effected to Bengal and adjacent provinces, via Calcutta, 88,400,000 yards; Egypt, 41,800,000

yards; Bombay, 32,600,000 yards; China, 30,200,000 yards; Dutch East Indies, 17,000,000 yards; Australia, 13,200,000 yards; and Argentina, 12,200,000 yards. The markets which showed the greatest decreases in November from October were Bengal and adjacent provinces, Morocco and non-British West Africa. Summarized the months' exports were:

For the eleven months ending with November, 1921, exports of all classes of cotton piece goods from the United Kingdom totalled \$2,572,385,600 square yards. This is considerably lower than the corresponding aggregate for 1920, which was 4,188,511,700 square yards, and for January-November, 1913, which was 6,544,100 linear yards. The value of the piece goods shipments for the first eleven months of 1921 was 125,293,291 pounds, which is less than one-half the total for the eleven months of 1920, but which exceeds by nearly 40 per cent the total for the corresponding period in 1913.

Good crops, fair or better prices obtained for native produce, and the large influx of immigrants from adjoining provinces have caused the import trade of Manchuria to show a steady increase since 1910. Manchurian manufactures have been developed but little, and as about 75 per cent of the population is engaged in agricultural pursuits, habits and style of living are extremely economical, the winters being exceptionally long and severe. Existing conditions make the importation of foreign goods a necessity, and as the people are both unable and unwilling to pay for high priced fabrics, the cheaper cotton piece goods are in great demand. It is worthy of note that Manchuria, with its population of less than 20,000,000, today consumes about 30 per cent of the entire importation of cotton piece goods into China.

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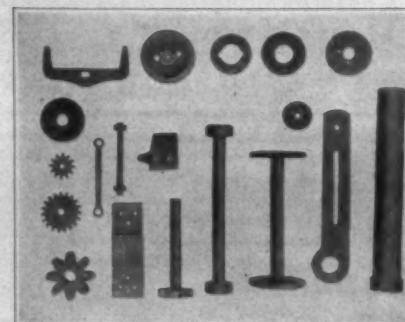
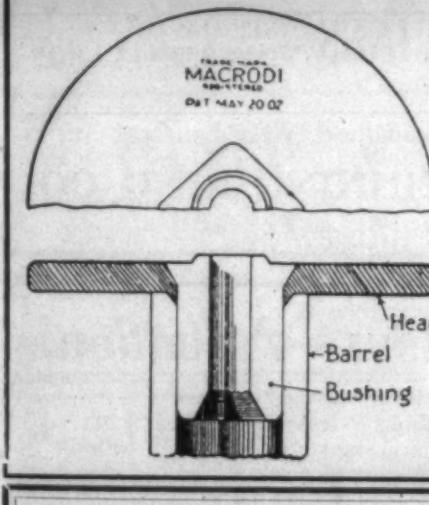
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Cotton Goods

New York—A firmer tone and better feeling in all quarters marked the last week of the year in the cotton goods market. The demand for staple goods, which has been very good for the past several weeks, continued to improve, and shows indication of developing into a very active market, although most of the orders placed lately have been mainly for small quantities.

Prices on print cloths have moved up slightly again and sheeting prices were also firmer. Commission houses reported more buying of standard goods than was generally expected, which indicates that jobbers have very clean stocks at this time, and are more confident of future business.

The advance in cotton during the last two weeks has had a good effect on the goods markets and has been more far reaching than the mills have been able to cover on. For this reason, mills are making strong efforts to get prices higher. Additional business on tickings came through during the week and denims have sold well for delivery during the first quarter of the year. The small lot business in other heavy colored cottons has been larger of late.

The fancy cotton blanket business for next year is making good progress after recent openings. Ginghams continued firm. Bleached cottons in narrow widths are quiet but there has been a further business done in sheets and pillow tubings. Printed wash fabrics are now attracting more attention among buyers and shipments of all yarn dyed goods purchased for spring are wanted promptly in January. Cotton duck products still continue slow as a rule and auto cloths are inactive although steadier. Ginghams continue in demand with more interest being shown in any new fall offerings. Plain white goods have sold well but fancies are slow.

Moderate purchases are being made in primary and wholesale channels and it is developing that stocks require replenishing beyond all question. Merchandise men for retail stores who have been holding buyers down have caused the missing of business, while jobbers whose eyes were glued on inventories have lost sight of the subtle rise in textile raw materials, and the lack of accumulations.

In the large cotton goods houses trading has been steadier than is expected at this period of the year and considerably better than it was thought it could be in this particular year. Aside from the cleaning up of many house stocks and warehouse lots, orders have come in from jobbers who have disclosed the lowest stocks in a long time and yet who have bought moderately. On this premise predictions of a healthy spring trade have become numerous in conservative channels.

Business in 37-inch, 48 squares, 4.00 yard, at 9 cents, net, for January-February-March, was reported.

Some sellers declined to accept this figure, holding for more. At the same time, it was learned that some 56x60, 4.00 yard had sold at 9% cents, net, whereas the market was generally considered at 9% cents, net, or 10 cents, with terms. For 31-inch, 5.00 yard, 7 1/4 cents, net, was quoted; 6 1/2 cents, net, for 6.15 yard; 4.70 yard at 8% cents with terms; 3.00 yard at 10% to 10 1/2 cents, net. For 40-inch, 2.85 yard, 11 1/2 cents, net, was considered the best that could be done, a large order at 11 1/2 cents, with terms, having been declined.

One center reported on gray goods that 5,000 pieces of spots of 64x60, 5.35 yard, Southern offered 8% cents, but was unable to use them. Later a large house claimed to have had a bid for 10,000 pieces of 64x60s spots at 8% cents, but that it had declined the business, holding for 9 cents. Nine cents certainly was the market for anything in the way of contract.

Limited business in 68x72s, 4.75 yard, at 10 cents, was reported, this being considered the best that could be done. On Southern 72x76, 4.25 yard, 11 cents was the market; and 12 1/2 cents for 80 squares, 4.00 yard.

For 64x56, 5.50 yard, 8% cents was quoted. Some 60x48, 6.25 yard, Southern, sold at 7% cents, but it was doubted whether many more could be had at this figure, the general price being 7% cents, at which figure some Eastern sold.

Southern 27-inch, 9.00 yard, were available at 4% cents, with 5 cents the last heard from all River; 4 1/4 cents on 25-inch, 10.55 yard.

Wash goods, including batistes, voiles and organdies, bid fair to have a stronger sale the coming season than heretofore. The larger demand is attributed to the fact that women are more favorably inclined toward light weight fabrics for dresses. The wearer will adjust herself to weather conditions by using light, medium and heavy weight coats and wraps.

Plain mercerized colored voiles, thirty-nine to forty inches wide, are another wanted fabric. Thirty-nine to forty-inch printed organdies bid fair to become very popular, as the first showings are selling well. In recent years plain organdies have been in vogue, and this is the first time for a long period that printed organdies have been produced.

Prices on cotton goods were quoted as follows:

Print cloths, 28-in., 64x64s...	6 1/4
Print cloths, 28-in., 64x60s...	6
Print cloths, 27-in., 64x60s...	5 1/2
Gray goods, 38 1/2-in., 64x64s...	9 1/4
Gray goods, 39-in., 68x72s...	10
Gray goods, 39-in., 80x80s...	12 1/2
Brown sheetings, 2-yard...	10 1/2
Brown sheetings, 4-yard...	10 1/4
Brown sheetings, Southern standard...	12
Tickings, 8-ounce...	28
Denims, 2.20...	19 1/2
Staple ginghams...	14 1/2
Dress ginghams...	20a22 1/2
Standard prints...	11
Kid finished cambrics...	8 1/2a9 1/2

The Yarn Market

Philadelphia, Pa.—The yarn market was much more active last week and some advances in prices were made. Again prices for Southern carded knitting and weaving yarns were moved up as the week closed. Recent large purchases by users of knitting yarns at prices slightly under the generally quoted market have caused spinners to stiffen in their attitude in expectation of further business of a similar nature. The more active cotton market and consequent higher prices has been another factor in holding prices up.

There appears to be a general feeling among spinners that a fairly large buying movement will develop within the first few weeks of the year and most of them are optimistic over the outlook. They point out that for almost two months, buyers have hesitated in buying any yarns except those absolutely needed and that this policy has left many yarn users in a position where they will soon have to come into the markets again, a theory that is being well borne out by the number of inquiries that have been noted during the past two weeks. Seasonal dullness and inventory periods have had a big effect in slowing up sales and many yarn buyers who have delayed buying for these reasons are expected to operate soon.

Prices are still unsatisfactory and are too close to actual production costs for comfort, a fact that is causing mills to be firmer in their price ideas. If the developments of the next few weeks run true to the many predictions of active buying, there is no doubt that yarn prices will soon be at considerably higher levels.

Cotton yarns were quoted in this market as follows:

Southern Two-Ply Chain Warps, Etc.

10s	31	@	2-ply	26s	37	@	
12s to 14s	32	@	32½	30s	38	@	
2-ply	16s	33	@	2-ply	40s	53	@
2-ply	20s	34	@	2-ply	50s	70	@
2-ply	24s	35	@				

Southern Two-Ply Skeins.

6s to 10s	29	@	30	35s	48	@	
10s to 12s	31	@	32	40s	52	@	
12s	32	@		50s	70	@	
14s	33	@		60s	82	@	
20s	33½	@	34	Upholstery			
24s	35	@		Yarns			
26s	36	@		3s, 4s & 5-ply	21	@	
30s	37	@	39				

Duck Yarns.

3, 4 & 5-ply			3, 4 & 5-ply			
8s	29	@	30	16s	33	@
10s	31	@		20s	34	@

Southern Single Chain Warps.

6s to 10s	29	@		22s	35	@
12s	30	@		24s	36	@
14s	31	@		26s	37	@
16s	32	@		30s	37	@
20s	33	@	34	40s	53	@

Southern Single Skeins.

6s to 8s	29	@		20s	33	@
10s	30	@		22s	34	@
12s	31	@		24s	35	@
14s	32	@		26s	36	@
16s	33	@	34	30s	38	@

Southern Frame Cones.

8s	30	@		22s	34½	@
10s	31	@		24s	35½	@
12s	32	@		26s	36	@
14s	32½	@	33	30s	36½	@
16s	33	@	34	30s extra	40	@
20s	34	@	34½	40s	54	@

Southern Combed Peeler Skeins, Etc.

2-ply	30s	65	@	2-ply	60s	1	03	@
2-ply	36s	70	@	2-ply	70s	1	20	@
2-ply	40s	75	@	2-ply	80s	1	37	@
2-ply	50s	93	@					

Combed Peeler Cones.

10s	49½	@		28s	58	@		
12s	50	@		30s	62	@		
14s	50½	@		32s	64	@		
16s	51	@		34s	66	@		
18s	52	@		36s	68	@		
20s	53	@		40s	70	@		
22s	54	@		50s	90	@		
24s	55	@		60s	1	05	@	
26s	56	@						

Eastern Carded Peeler Thread Twist Skeins.

20s	2-ply	41	@	30s	2-ply	62	@	
22s	2-ply	44	@	40s	2-ply	58	@	
24s	2-ply	47	@	45s	2-ply	70	@	
26s	2-ply	49	@					

Eastern Carded Cones.

10s	35	@		22s	41	@
12s	36	@		26s	43	@
14s	37	@		28s	45	@
16s	38	@		30s	48	@

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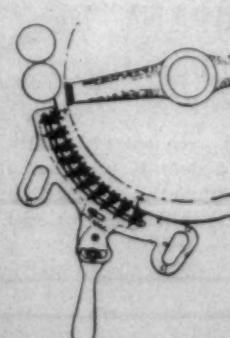
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WANT position as overseer of carding. Now have charge of room in good mill but wish larger job. Over 15 years experience in carding and can get excellent results. Good references. Address No. 3307.

WANT position as superintendent, assistant superintendent, or overseer of carding or spinning. Would consider good office position. My experience covers 20 years in various departments of the mill. Textile graduate, age 35. Address No. 3008.

WANT position as superintendent of weaving mill, white or colored work, where quantity and quality will be appreciated. Age 36. Now employed as carder in large colored goods mill. Over 25 years experience in cotton mill work. 15 years as overseer. Address No. 3309.

WANT position as superintendent of yarn mill, or would take place as overseer of spinning in large mill. Now employed and giving satisfaction. Prefer place in Georgia. Long experience, good references. Address No. 3310.

WANT position as master mechanic; 12 years experience in both steam and electrically driven plants. Now employed. Good references as to character and ability. Address No. 3312.

WANT position as superintendent. Am a competent man, who has had long experience as superintendent and overseer and can handle large or small job in satisfactory manner. Excellent references. Address No. 3313.

WANT position as overseer of spinning in small mill, or would take second hand's place in smaller plant. Now employed. Fine references. Address No. 3314.

WANT position as overseer of weaving. Am experienced on plain and fancy goods and can manage help and produce quality with low percentage of waste. Now employed. Best of references. Address No. 3215.

WANT position as overseer of weaving, plain or fancy work, prefer Draper looms. Have had 18 years experience in weave room, 5 as second hand and assistant overseer. Now have responsible position, but have good reason for wishing to change. References as to ability and character. Address No. 3316.

WANT position as superintendent. Now employed as superintendent of medium size mill on fine combed yarns and am giving entire satisfaction, but want larger job. Married, good habits, fine references covering experience, character and ability. Address No. 3317.

WANT position as superintendent, overseer of weaving, or as salesman of mill supplies. Will be pleased to submit references showing my ability, experience and character. Now employed. Address No. 3318.

WANT position as superintendent of yarn mill, prefer mill on hosiery yarns. Would like place in run down condition to bring it up. Married, age 48, long experience. Good references. Address No. 3319.

WANT position as superintendent of yarn or weave mill on white work. Long experience in a number of good mills and can get results. Fine references. Address No. 3320.

WANT position as overseer of carding, or spinning, or overseer carding and spinning. Am man of long, practical experience, and can get excellent results. Now employed. Good references. Address No. 3321.

WANT position as overseer of carding or spinning, or would take both. Now employed in mill on double carded knitting yarns and am giving satisfaction but wish a larger place. Satisfactory references as to character and ability. Address No. 3323.

WANT position as superintendent of weaving mill, white or colored work, colored preferred. Have successfully filled my present position for the past three years, but have good reason to change. Have had over 20 years' experience in weaving and have ability to handle large or small mill in an efficient manner. References. Address No. 3324.

WANT position as master mechanic. Have handled for a long period, mills on both steam and electric drive and am capable of handling either kind of job. Am giving satisfaction on present job, but wish to change for good reasons. Address No. 3325.

WANT position as superintendent of weaving mill. Especially experienced on print cloths and have handled several print cloth plants very satisfactorily. Would consider place with mill on other goods, as my experience covers a wide variety of fabrics. References showing character, experience and ability. Address No. 3327.

WANT position as superintendent of small yarn or weaving mill. Now employed as superintendent, but can come on short notice. References as to character and ability. Address No. 3328.

WANT position as overseer of weaving. Have had many years of practical experience on wide variety of fabrics and can give satisfaction. Excellent references. Address No. 3330.

WANT position as overseer of weaving. Fifteen years' experience in weaving, seven years as overseer. Experienced on both plain and Draper looms. Good references. Address No. 3331.

WANT position as superintendent, preferably in colored goods mills; 14 years experience in mill. Now employed but desire to change. Educated in N. C. Textile School. Age 34; unmarried, but settled. Address No. 3332.

WANT position as overseer of carding and spinning, or both. Thoroughly experienced in both departments. Now employed, but can change on short notice. Good references. Address No. 3333.

WANT position as superintendent. Am experienced overseer of long experience and also owner of patent that can be made very profitable and give the owners a decided advantage if not a monopoly on certain class of goods. Would take stock in mill for same, and also additional stock. Small yarn mill preferred. Am expert carder, young, but settled. Address No. 3334.

WANT position as overseer carding or spinning, or both. Am 33 years of age, seven years as overseer. Good references. Address No. 3335.

WANT position as overseer of spinning. Prefer mill in North Carolina. Can furnish satisfactory references as to past experience, ability and character. Address No. 3336.

WANT position as overseer of weaving, or take place as assistant in large room. Good record over long term of years. Have handled many varieties of fabrics. Satisfactory references. Address No. 3337.

WANT position as overseer of carding. Now employed as second hand, but by experience and ability am capable of handling overseer's job. Good references. Address No. 3338.

WANT position as superintendent of yarn mill on local cotton. Have had 29 years' experience in mill business, number of years as superintendent. Am 50 years old, married and have family of help. Can come at once. References. Address No. 3339.

WANT position as overseer of spinning, spooling or winding. Young married man, age 30. Have been on some of best jobs in South. Am now general overseer spinning, spooling, twisting and winding. Good reasons for making change. Prefer mill in small town. Address No. 3340.

WANT position as overseer cloth room. Can handle large or small job. Ten years' experience on most all kinds of white goods. Experienced on tire fabrics, and all kinds of goods for rubber trade. Best of references. Address No. 3341.

WANT position as superintendent in weave mill on white work, or would take place as overseer in large weave

room. Now employed. Best of references. Address No. 3342.

WANT position as superintendent of yarn mill, or overseer of large spinning room. Practical man of long experience who has always given satisfaction. Excellent references. Address No. 3343.

WANT position as overseer of weaving. Would consider second hand's place on large job. Excellent references as to character and ability. Address No. 3344.

WANT position as overseer of weaving in mill on plain goods. Would not consider place less than \$30 per week. Now employed, but want larger job. Best of references. Address No. 3345.

WANT position as superintendent or would take overseer of carding or spinning. Experienced, reliable and capable, and have excellent references from past and present employers. Address No. 3346.

WANT position as superintendent of yarn or weave mill. Long experience with good mills and can give excellent results. Best of references. Address No. 3347.

WANT position as superintendent or manager. Am experienced superintendent, now successfully operating a good mill, but wish a larger place. Excellent references. Address No. 3348.

WANT position as superintendent. Have held similar position with some of the best mills in the South. Can come on short notice. References. Address No. 3349.

WANT position as superintendent. Well fitted by training and experience to handle mill on any class of goods made in the South. Excellent references. Address No. 3350.

WANT position as superintendent or overseer of carding and spinning. Now employed. Have been superintendent and overseer for long period of years and always given satisfaction. Fine references. Address No. 3351.

WANT position as overseer of weaving. Experienced on both plain and fancy goods, and can get quality and quantity production. Good habits, steady worker. Excellent references. Address No. 3352.

WANT position as superintendent, overseer of carding or overseer of carding and spinning. Have worked in mill more than 20 years. Over 10 years as superintendent. Good references as to character and ability. Address No. 3353.

WANT position as master mechanic and engineer. Capable man whose experiences covers many years in power plant work. Good references. Address No. 3354.

WANT position as overseer of carding. Have had over 25 years experience in card room, 15 as overseer. Can give satisfaction in every respect. Address No. 3355.

WANT position as master mechanic. Have had 15 years experience in textile steam power and electric plants, 3½ years with U. S. ship yards. Can handle any size power plant in satisfactory manner. Best of references from present and past employers. Address No. 3356.

WANT position as overseer of carding, or spinning, or both. Am at present overseer of carding and spinning, but have good reason for wishing to change. Good character, long practical experience and energetic worker. References. Address No. 3357.

WANT position as overseer of carding in medium sized mill, or would take second hand's place in large mill. Young man, 36 years, but am thoroughly practical and have fine experience. Good references. Address No. 3358.

WANT position as overseer of spinning, either yarn or weave mill. Can handle either in satisfactory manner. Good references covering my experience, ability and character. Address No. 3359.

WANT position as superintendent of small mill, or overseer of carding and spinning on medium numbers, white or colored. Am 43 years old, 32 years experience, will go anywhere. Take small salary until I show what I can do. References. Address No. 3360.

WANT position as superintendent, or would take overseer of carding, spinning, or both. Now employed as overseer of carding in good mill, but wish to change to different locality. Good references. Address No. 3361.

WANT position as overseer of slashing, warping or cloth room. Mill experience covers more than 20 years and can handle efficiently either one of the above positions. Good references gladly furnished. Address No. 3362.

WANT position as engineer and master mechanic. Long experience in steam plants and machine shops. Specially good on welding. References. Address No. 3363.

WANT position as office manager for cotton mills. Am experienced in manufacturing end, cotton buying and selling. Am competent to take over office end of either cotton or hosiery mill. Excellent references. Married, good worker. Address No. 3364.

WANT position as superintendent. Mid-aged man and have worked in mill for over 30 years. Can handle either yarn or weaving plant. Now employed. Good references. Address No. 3365.

WANT position as superintendent. Prefer a weave mill. Competent, reliable and experienced. My experience covers every phase of cotton mill business and I can get quality and quantity production. Now employed at good mill, but have good reason for making change. References. Address No. 3366.

WANT position as superintendent, overseer of carding, or spinning or both. Have been an overseer for 32 years and superintendent for more than 15. Would like an opportunity to correspond with mill needing reliable and practical man. Address No. 3367.

WANT position as overseer of weaving or cloth room. Now employed as overseer cloth room. Age 48, married, have family, 30 years experience. Good references from past and present employers. Address No. 3368.

WANT position as overseer of carding. Can handle any size job on Saco machinery. Experienced in both mill work and machinery erecting. Good references as to character and ability. Address No. 3369.

WANT position as mill manager, superintendent or executive position in office. Experienced in executive work in both New England and Southern mills, trained for both mill and office work. Know cost systems, can handle help, am college graduate and feel competent to handle position as superintendent or manager. Address No. 3370.

WANT position as overseer of weaving of large cloth room. Age 49, 27 years experience in weaving. Good references from past and present employers. Address No. 3371.

WANT position as superintendent. Now employed as overseer of weaving in large mill, but by experience and training am competent to handle job as superintendent. Good character, steady worker and can give fine references. Address No. 3372.

WANT position as overseer of cloth room in large mill. Am 45 years of age, married, 15 years as overseer in mills in South Carolina. Now employed, but can come on two weeks' notice. Good references. Address No. 3373.

WANT position as overseer of carding or spinning or both. Age 35, have been second hand and overseer for past 14 years. Practical experience on all classes of work. Sober and reliable and can give excellent references. Address No. 3374.

WANT position as superintendent or overseer of carding and spinning. Long experience as to character and ability. Address No. 3375.

WANT position as overseer of weaving. Experienced on all classes of goods and can handle any sized weave room in competent manner. Good references. Address No. 3376.

WANT position as superintendent, assistant superintendent, or overseer of carding. Good references as to character and ability. Address No. 3377.

WANT position as carder, spinner, or superintendent. Long experience in a number of good mills. Best of references. Address No. 3378.

WANT position as overseer of carding. Experienced more than 25 years as overseer and second hand. Am a hustler and can get production on either white or colored goods. Address No. 3379.

WANT position as superintendent. Now hold a similar position in one of the best mills in North Carolina, but want to make a change. References as to character and ability gladly furnished. Am high class man and would not consider a small job. Address No. 3380.

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Crescent Spinning Mills	Belmont, N. C.
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Savona Manufacturing Co.	Charlotte, N. C.
Cannon Manufacturing Co.	Concord, N. C.
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Clara Mills	Gastonia, N. C.
Myers Mills	Gastonia, N. C.
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Proximity Cotton Mills	Greensboro, N. C.
White Oak Cotton Mills	Kannapolis, N. C.
Cannon Manufacturing Co.	Kannapolis, N. C.
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Roanoke Mills	Roanoke Rapids, N. C.
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Entwistle Manufacturing Co.	Rockingham, N. C.
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Eastside Mills	Shelby, N. C.
Spindale Mills	Spindale, N. C.
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Republic Cotton Mills	Great Falls, S. C.
Laurens Cotton Mills	Laurens, S. C.
Pacolet Manufacturing Co.	Pacolet, S. C.
Pelzer Manufacturing Co.	Pelzer, S. C.
Piedmont Manufacturing Co.	Piedmont, S. C.
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Blue Buckle Cotton Mills	Rock Hill, S. C.
Wymojo Cotton Mills	Rock Hill, S. C.
Spartan Mills	Spartanburg, S. C.
Ware Shoals Manufacturing Co.	Ware Shoals, S. C.
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